WD Sentinel™ DS5100/DS6100

Ultra-compact Storage Plus Server

Administrator and Maintenance Guide

WD® Service and Support

Should you encounter any problem, please give us an opportunity to address it before returning this product. Most technical support questions can be answered through our knowledge base or email support service at *http://support.wd.com*. If the answer is not available or if you prefer, please contact WD at the best telephone number shown below.

WD Guardian™ Services premium Technical Support and Extended Warranty services are also available for Small Business customers. Contact WD Technical support at *http://support.wd.com* for information about this extra level of support and how to obtain it.

Your product includes 30 days of free telephone support during the 1-year standard limited warranty period. This 30-day period starts on the date of your first telephone contact with WD Technical Support. Email support is free for the entire warranty period and our extensive knowledge base is available 24/7. To help us keep you informed of new features and services, remember to register your product on the Registration page on the user interface or online at *http://register.wd.com*.

WD Guardian Services

When you need a little help from an expert, we'll take care of you! WD Guardian Services offers flexible, affordable and hassle-free technical support and extended warranty plans with a variety of benefits. Choose the plan that works best for your business. Visit *www.wdguardian.com* for details.

Accessing Online Support

Visit our product support website at *http://support.wd.com* and choose from these topics:

- **Downloads** - Download drivers, software, and updates for your WD product.
- **Registration** - Register your WD product to get the latest updates and special offers.
- **Warranty & RMA Services** - Get Warranty, Product Replacement (RMA), RMA Status, and Data Recovery Information.
- **Knowledge Base** - Enter keyword, phrase, answer ID, or PID.
- **Installation** - Get manuals, installation guides, and documentation for your WD product.
- **WD Community** - Share your thoughts and connect with other WD users.

Contacting WD Technical Support

When contacting WD for support, have your WD product serial number, system hardware, and system software versions available.

North America		Europe (toll free)*	00800 ASK4 WDEU
English / Spanish	855.556.5117		(00800 27549338)
		Europe	+31 880062100
South America		**Middle East**	+31 880062100
Chile	1230 020 5871	**Africa**	+31 880062100
Colombia	009 800 83247788	**Russia**	8 10 8002 335 5011
Venezuela	0800 100 2855		
Peru	0800 54003	**Asia Pacific**	
Uruguay	000 413 598 3787	Australia	1800 429 861 / 0011 800 2275 4932
Argentina	0800 4440839	China	800 820 6682 / 400 627 6682
Brazil	0800 7704932	Hong Kong	3057 9031
	0021 800 83247788	India	1800 200 5789 / 1800 419 5591
		Indonesia	001 803 852 3993
		Japan	0800 805 7293
		Korea	02 2120 3415
		Malaysia	1800 817 477
		New Zealand	0508 555 639 / 00800 2275 4932
		Philippines	1800 1855 0277
		Singapore	1800 608 6008
		Taiwan	0800 225 593
		Thailand	00 1800 852 5913
		Other countries	+86 21 2603 7560

* Toll free number available in the following countries: Austria, Belgium, Czech Republic, Denmark, France, Germany, Ireland, Italy, Netherlands, Norway, Poland, Slovakia, Spain, Sweden, Switzerland, United Kingdom.

Registering Your WD Product

Register your WD product to get the latest updates and special offers. You can easily register your product on the user interface of the product software or online at *http://register.wd.com.*

Table of Contents

1

Important User Information

Important Safety Instructions

This device is designed and manufactured to assure personal safety. Improper use can result in electric shock or fire hazard. The safeguards incorporated into this unit will protect you if you observe the following procedures for installation, use, and servicing.

- Follow all warnings and instructions marked on the product.
- Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
- Do not use this product near any liquids.
- Do not place this product on an unstable surface. The product may fall, causing serious damage to the product.
- Do not drop the product.
- Do not block the slots and openings on the back or bottom side of the chassis; to ensure proper ventilation and reliable operation of the product and to protect it from overheating, these openings must not be blocked or covered. Making sure the server is standing upright also helps prevent overheating.
- Operate this product only from the type of power indicated on the marking label. If you are not sure of the type of power available, consult your dealer or local power company.
- Do not allow anything to rest on the power cord. Do not locate this product where persons will walk on the cord.
- Never push objects of any kind into this product through the chassis slots as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock.
- Ensure that you keep the door lock keys that come with your WD Sentinel device in a safe place.
- Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
  - When the power cord or plug is damaged or frayed.
  - If liquid has been spilled on the product.
  - If the product has been exposed to rain or water.
  - If the product does not operate normally when the operating instructions are followed. Adjust only those controls that are covered by the operating instructions since improper adjustment may result in damage and require extensive work by a qualified technician to return the product to normal condition.
  - If the product has been dropped or the chassis has been damaged.
  - If the product exhibits a distinct change in performance, contact WD Customer Support at *http://support.wd.com*.

WARNING!	**The WD Sentinel™ Server uses a lithium battery, type CR2032. There is danger of an explosion if the battery is incorrectly replaced. Replace only with the same or equivalent battery type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.**

Handling Precautions

WD products are precision instruments and must be handled with care during unpacking and installation. The WD Sentinel server may be damaged by rough handling, shock, or vibration. Be aware of the following precautions when unpacking and installing your external storage product:

- Do not drop or jolt the WD Sentinel server.
- Do not move the unit while it is powered on.
- Do not use this product as a portable drive.

Recording Your WD Product Information

Remember to write down the following WD product information, which is used for setup and technical support. Your WD product information is found on the label on the bottom of the device.

- Serial Number
- Model Number
- Purchase Date
- System and Software Notes

About This Guide

This Administrator and Maintenance Guide provides detailed instructions and information for WD-specific interface elements and functions. Unless otherwise noted, refer to *Microsoft® Online Help* for standard interface elements and functions. This guide uses the following conventions:

Convention	Used for...
Bold font	Names of items on a page such as menus, buttons, option names, fields, and tabs that the user must click or complete and keys the user must press.
Note:	Extra, but not vital, information
Important:	Essential Information to know or to prevent problems when using the WD Sentinel server
WARNING!	Vital information for operating the WD Sentinel server or to prevent damage to the server or your computer.

2 # Product Overview

Getting to Know Your WD Sentinel DS5100/DS6100 Server

Congratulations on your purchase of the WD Sentinel DS5100/DS6100 Ultra-compact Storage Plus Server. Designed for storage plus server capabilities, the WD Sentinel DS5100/DS6100 is ideal for small businesses that are looking for an ultra-compact unified storage solution with an integrated iSCSI SAN, NAS and server-based backup technology. Featuring hard drives optimized for reliability, quality and performance, an Intel® Xeon™ processor and Microsoft® Windows Server® 2012 R2 Essentials operating system, it offers the flexibility to make technology decisions based on individual business needs and provides highly secure access to data and line of business applications, even when working remotely.

Key Features

Ultra-compact storage plus server for Small Business: WD Sentinel DS5100/DS6100 device is ideal for small businesses that need their first business server to be installed and on-boarded for first use right out of the box with an Active Directory and Primary Domain Controller. It is easy to setup and use and provides a unified storage solution with an integrated iSCSI SAN, NAS, and server-based backup technology. Designed to be "plug and play," the WD Sentinel DS5100/DS6100 includes pre-installed hard-drives, an operating system and all of the necessary software tools to complete the on-boarding and protect the data on a small business network. Complexity has been reduced, so once it's set up, it intelligently manages drive and network status, reducing maintenance time so you can focus on your business.

Windows Server 2012 R2 Essentials: WD Sentinel DS5100/DS6100 comes pre-installed with Windows Server 2012 R2 Essentials, an ideal operating system for small businesses. It provides a powerful and flexible solution that helps protect your business data while allowing you to access the information you need from virtually anywhere with almost any device. It provides an easy setup, installation, and migration experiences, a simplified management experience and better network-wide security features. It also incorporates the latest Microsoft technologies for management, networking, data storage and backup, security, document and folder sharing. Windows Server 2012 R2 Essentials supports up to 25 users and 50 devices. When your business needs exceed the limit, you can purchase an additional license and upgrade to Windows Server 2012 R2 Standard.

Support for Line-of-Business Applications: In addition to leveraging the backup, shared storage and cloud-based services capabilities of the WD Sentinel DS5100/DS6100 device, small business owners can use it as an application server for running on-premise or cloud-based line-of-business applications, including Office 365™.

Built-in Active Directory and Primary Domain Controller: Small businesses need to keep their data secure and must be able to restrict user access to it. The Active Directory and Primary Domain Controller in the WD Sentinel DS5100/DS6100 provide centralized management and security by authenticating and authorizing all users and computers on the network. It assigns and enforces security policies for all computers, so when a user logs into a computer that is part of a Windows domain, Active Directory checks the submitted password and determines what data the user is able to access.

All inclusive data protection for small business: We combined hardware and software from industry leaders to deliver a reliable, secure and easy-to-manage all-in-one server designed specifically for small office environments. The WD Sentinel DS5100/DS6100 features:

- Pre-configured Datacenter-class hard drives optimized for performance, quality and reliability.

- Protect your data on the 3.5" WD hard drives with either RAID (0, 1, 5, 10) or Windows Storage Spaces depending on user set up.

- Built with an Intel Xeon processor inside, WD Sentinel DS5100/DS6100 keeps your business running smoothly with server-class features that help protect critical business data with redundant storage capabilities and allows quick recovery in the event of a failure.

- Windows Server 2012 R2 Essentials–An ideal server for small businesses, Windows Server 2012 R2 Essentials provides a powerful and flexible solution that helps protect your business data while allowing you to access the information you need from virtually anywhere with almost any device. It provides easier setup, installation and migration experiences, a simplified management experience and better network-wide security features. It also incorporates the latest Microsoft technologies for management, networking, data storage and backup, and provides integration capabilities for cloud-based applications and services.

Backup server for up to 25 users and 50 computers: WD Sentinel DS5100/DS6100 includes Windows Server 2012 R2 Essentials software, providing centralized automated server-based backup for up to 50 Windows or Mac client computers in your network so there's no need to purchase additional backup software.

Easy setup and administration: WD Sentinel DS5100/DS6100 includes the hardware and software needed to centralize your business files. Once it's set up, administration is easy because it intelligently manages drive and network status, reducing maintenance time so you can focus on your business.

Anywhere Access and built-in VPN: WD Sentinel DS5100/DS6100 is a centralized storage solution with secure remote access. In addition to being able to access shared business data while inside the local network, the server provides an "always on" network storage solution that provides small businesses with access to data from virtually anywhere. Data can be accessed through any device, including a desktop, laptop, smartphone or a tablet. The anywhere access feature also supports remote system administration so small business owners, their trusted employees or IT administrators can perform administrative functions when not in the office.

Virtualize WD Sentinel storage using iSCSI Target: WD Sentinel DS5100/DS6100 supports iSCSI. IT Pro's and advanced users have the ability to partition their WD Sentinel for both NAS File based storage as well as IP-SAN with the iSCSI Target. This capability enables the administrator to create multiple iSCSI targets to meet the specific needs of their dynamic IT environments.

Enterprise-grade backup and restore software: The backup and restore software included with the WD Sentinel DS5100/DS6100 saves time and space by performing a full Bare Metal backup the first time and then, through block-level deduplication, backs up only the data that has changed since the previous backup. In the event of a data loss or a drive failure on a client computer, the WD Sentinel DS5100/DS6100's fast and easy restore function finds your files or lets you restore an entire system to get you up and running again. Local and remote automatic backup and restore is supported for both Windows and Mac OS® clients.

Pre-loaded Boot Drive(s): WD Sentinel DS5100/DS6100 comes with the 2.5-inch boot drive(s) pre-loaded with Windows Server 2012 R2 Essentials and specialized hardware services and drivers. The pre-loaded boot drive(s) provides the ability to keep the OS running from the boot drive while redeploying or changing applications and folders running on the large capacity data drives. This allows small businesses to save time, as there is no need to install from a DVD or search for any specialized drivers to install online.

Flexible Capacity: WD Sentinel DS5100/DS6100 offers various storage capacities so you can choose the capacity option that's right for your business. It is also designed to be user serviceable, with the ability to buy 2 TB, 3 TB and 4 TB expansion/replacement kits and other parts.

Dual Gigabit Ethernet ports: WD Sentinel DS5100/DS6100 comes with two Ethernet ports that can be configured for fault tolerance, aggregated for high performance, or used for two separate LANs.

Dual power supply: WD Sentinel DS5100/DS6100 offers dual power supplies, so in the event of a power surge or other failure damage to the internal power supply, the second power supply will take over, providing small businesses with the added peace of mind knowing that their server will remain operational.

Choice of Disaster Recovery Options: WD Sentinel DS5100/DS6100 offers a choice of disaster recovery protection options providing small businesses with the peace of mind that their business data is secure. They can choose to protect their data using local disaster recovery through network share (LAN & WAN) or local disaster recovery through DAS.

WD Guardian Services - Global Service & Support: When you need a little help from an expert, we'll take care of you! WD Guardian Services offers flexible, affordable and hassle-free technical support and extended warranty plans with a variety of benefits. Choose the plan that works best for your business. With the purchase of the WD Sentinel DS5100/DS6100, WD is offering one FREE year of WD Guardian Pro, which will be auto activated upon product registration. For details about WD Guardian Services, visit *www.wdguardian.com*.

Why WD?: WD has been making hard drives for over 40 years. We know how to build drives to store and protect your data because we understand that your company's data is paramount to your business success.
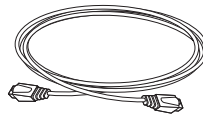
Package Contents

- Ultra-compact Storage Plus Server
- 1 RJ-45 Ethernet cable
- 1 -1.8 meter power adaptor with cord (WD Sentinel DS5100)
- 2 -1.8 meter power adaptors with cords (WD Sentinel DS6100)
- 2 door lock keys
- Basic Installation Guide
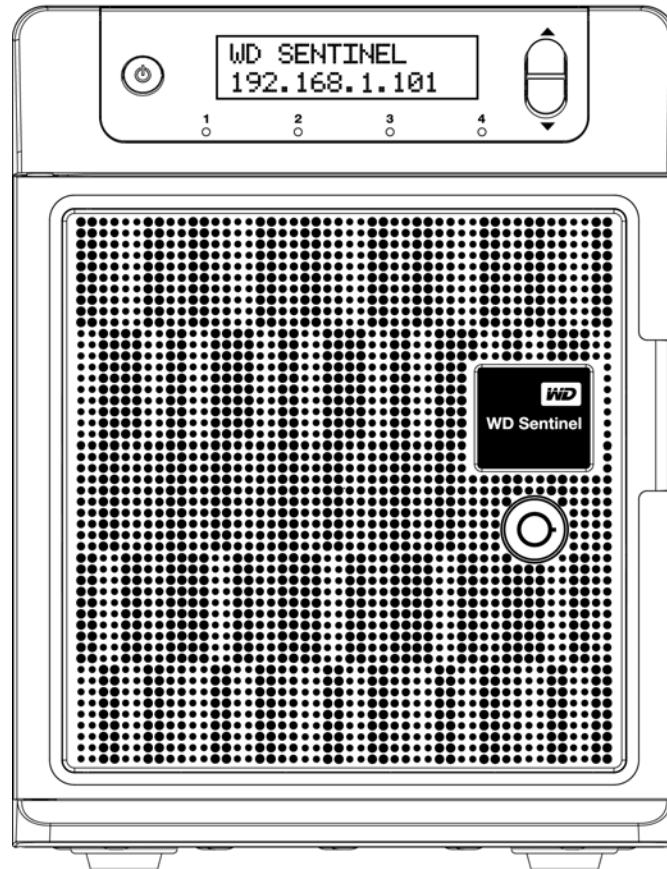
WD Sentinel
DS5100/DS6100
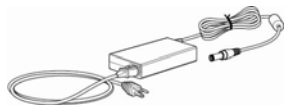
1.8 meter power cord and
power adaptor

Ethernet cable

Basic Install Guide

For information on additional accessories, visit:

US	*www.shopwd.com* or *www.wdstore.com*
Europe	• Austria: *www.wdstore.de* • United Kingdom: *www.wdstore.eu* • France: *www.wdstore.fr* • Italy: *www.wdstore.it* • Germany: *www.wdstore.de* • Spain: *www.wdstore.es* • Netherlands: *www.wdstore.nl* • Rest of EU Countries: *www.shopwd.eu* or *www.wdstore.eu*
All others	Contact WD Technical Support in your region. For a list of Technical Support contacts, visit *http://support.wd.com* and see Knowledge Base Answer ID 1048.

System Requirements and Compatibility Information

Requirement	Description
Client Operating System Backup Compatibility (for Connector Software)	**Windows 8** • Basic (x86 and x64) • Pro (x86 and x64) • Enterprise (x86 and x64) **Windows 7** • Home Basic (x86 and x64) • Home Premium (x86 and x64) • Professional (x86 and x64) • Ultimate (x86 and x64) • Enterprise (x86 and x64) • Starter (x86) **Mac OS X** • Leopard • Snow Leopard • Lion • Mountain Lion
File Sharing Support	File sharing support for Linux, UNIX, and other Windows operating systems
Local Network	• Router/switch (Gigabit Ethernet recommended to maximize performance)
Broadband Access	Required for remote access outside the LAN
Display and Peripherals	• Super VGA (800 x 600) or higher-resolution monitor • USB Keyboard • USB Mouse or compatible pointing device

Technical Specifications

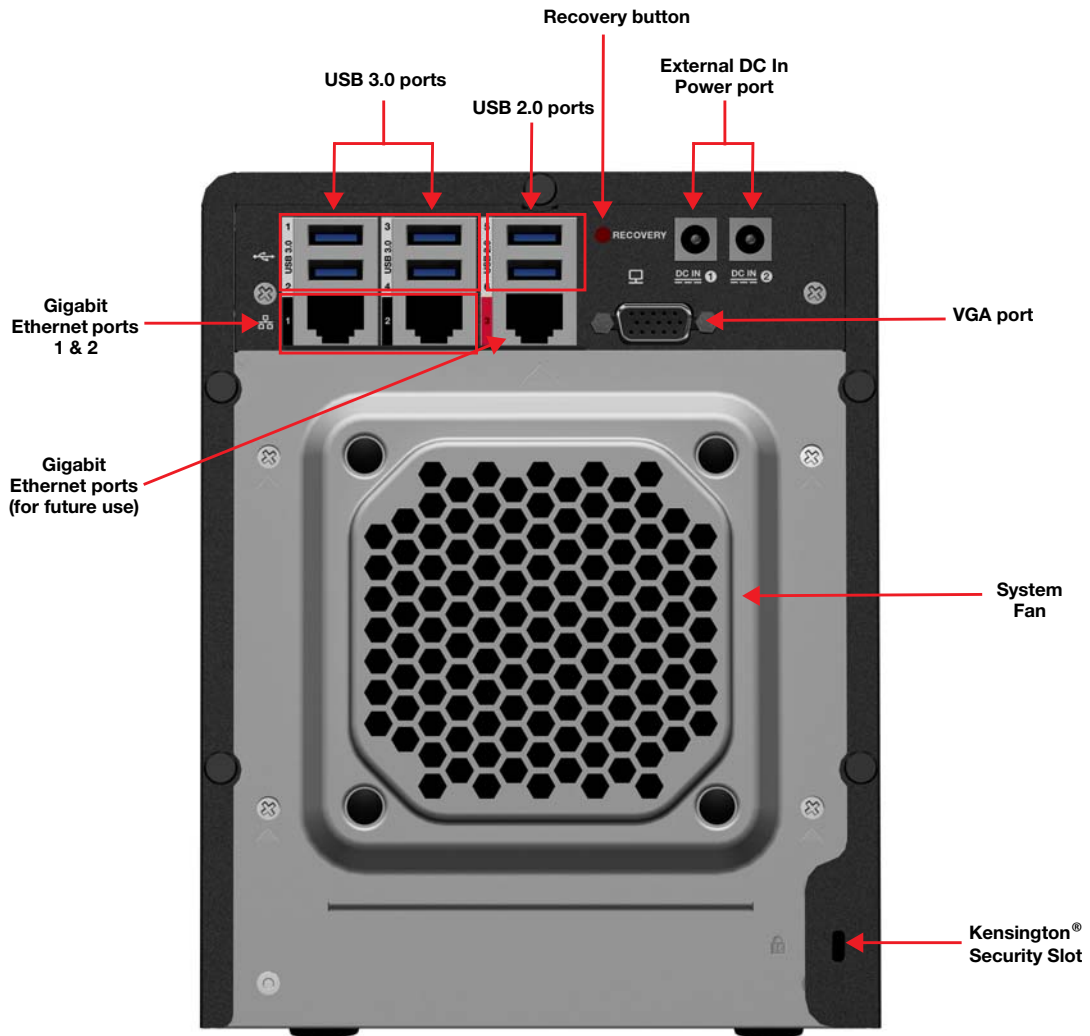| Specification	Description
Interfaces	• 2 High performance (10/100/1000) Gigabit Ethernet connections • 4 ports of powered USB 3.0 • 2 ports of powered USB 2.0 • 1 VGA Port
Supported protocols	CIFS/SMB, NFS, HTTP, HTTPS, WebDAV, AFP
Internal hard drives	**4 WD 3.5-inch SATA Best in Class hard drives with RAID-specific time-limited error recovery (TLER)** Pioneered by WD, this feature prevents drive fallout caused by the extended hard drive error-recovery processes common to desktop drives. **Approved Drive Models** For a complete list of approved drive models, search for Answer ID 9443 in the WD Knowledge Base at *http://support.wd.com*.
CPU	• WD Sentinel DS5100: Xeon E3-1220Lv2 Duel Core • WD Sentinel DS6100: Xeon E3-1265Lv2 Quad Core
Memory	• WD Sentinel DS5100: 2 - 4 GBytes SODIMM DDR3-1600 • WD Sentinel DS6100: 2 - 8 GBytes SODIMM DDR3-1600
Drive bays	• 4 3.5 inch hard drive bays • Hot swap capable • Trayless design
RAID level	• Redundant Storage supported • Windows Storage Spaces • RAID Levels 0, 1, 5, 10
Physical dimensions	• Length: 26 inches (660 mm) • Width: 19 inches (482.1 mm) • Height: 1.75 inches (44 mm)
Weight	• 8 TB and 12 TB: 26.627 lbs (12.078 kgs) • 16 TB: 27.112 lbs (12.298 kgs)
Capacities	**WD Sentinel DS5100** • 4TB (2 x 2TB) • 8TB (4 x 2TB) **WD Sentinel DS6100** • 8TB (2 x 4TB) • 12 TB (4 x 3 TB) • 16 TB (4 x 4 TB)
Power	**WD Sentinel DS5100** • 1 external power supply • 1 external power port for failover (optional) **WD Sentinel DS6100** • 2 external power supplies
Power supply	• Input voltage: 100 to 240 V AC • Input frequency: 50 to 60 Hz • Output voltage: 19V DC, up to 7.9A
Temperature	• Operating temperature: 0 to 35 °C (32 to 95 °F) • Non-operating temperature: -40 to 70°C (-40 to 158 °F)
Switches	• Power • Recovery • LCM Scroll buttons

Specification	Description
LEDs	**1 Power LED** • Flashing blue indicates boot status • Flashings RED indicates a fault condition • Solid blue once booted, and there are no pending fault conditions, indicates a good operational state • Black indicates inactive state **2 Ethernet Port LEDs** • Flashing green indicates activity • Solid amber indicates that there is a link connection • Black indicates inactive state **4 Drive Tray LEDs** • Flashing blue or solid blue indicates drive activity • Solid RED indicates drive fault (Drive must be replaced)
Operating System	Windows Server 2012 R2 Essentials
Backups	50-client computer support for backup (Windows and Mac OS Client computers)
Restore	• Bare metal restore for Windows clients • File/folder level restore

Product Views

Front View

Back View

Recovery button

USB 3.0 ports

External DC In
Power port

USB 2.0 ports

Gigabit
Ethernet ports
1 & 2

RECOVERY

VGA port

Gigabit
Ethernet ports
(for future use)

System
Fan

Kensington®
Security Slot
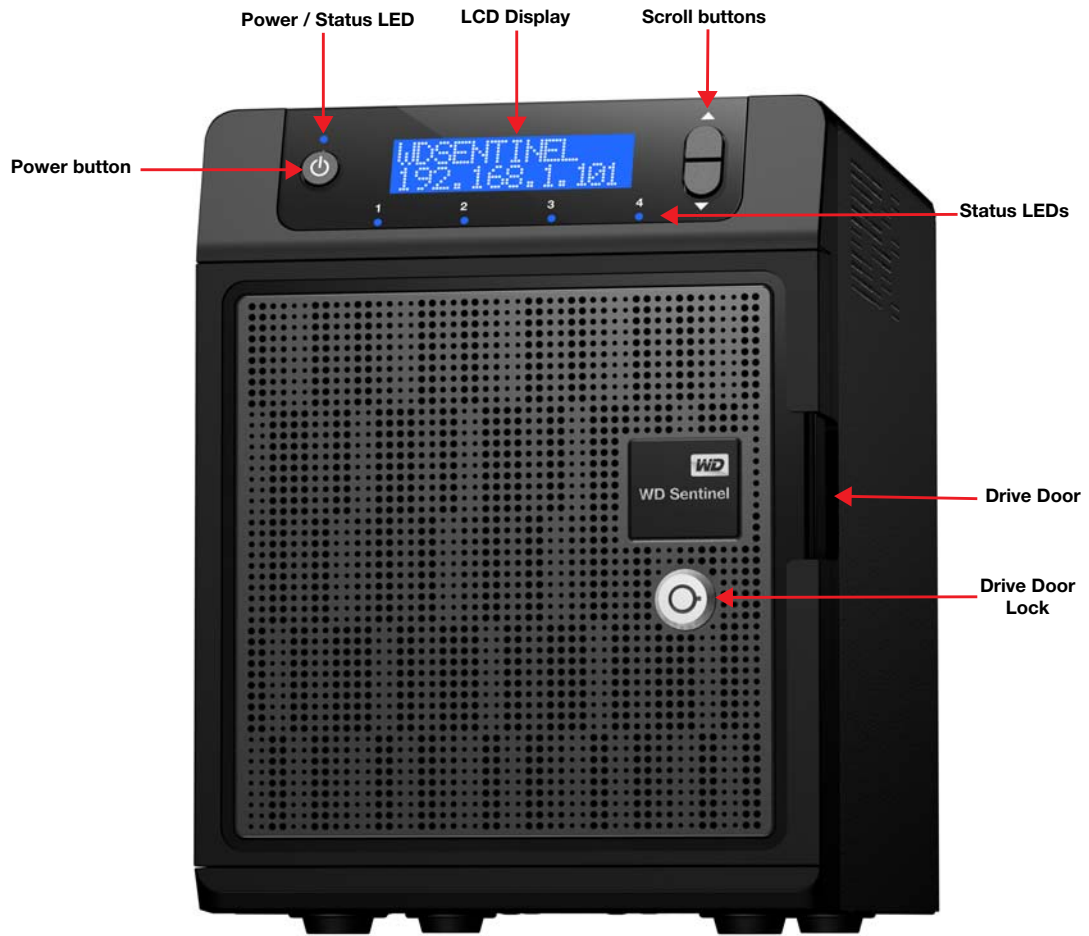
Indicators

Component	Icon	Description
Ethernet ports		Connect the device to a local network.
DC In connector		Connects the device to a DC power cord and the power outlet.
Recovery button	RECOVERY	Button on the back of the server recovers the server (including the operating system) while using a USB drive in an event of an OS corruption.
USB ports		Connects with USB 2.0 and 3.0 devices such as a USB storage, USB mouse, USB keyboard, or a UPS.
VGA port		Connects to your VGA monitor
Kensington security slot		For drive security, the device is equipped with a security slot that supports a standard Kensington security cable. Visit *http://www.kensington.com/* for more information.

LEDs

The LEDs on the WD Sentinel identify the status of the unit.

LED	Color	State	Description
Power LED	Black	Off	WD Sentinel server is currently inactive.
	Blue	Solid	WD Sentinel server has successfully booted the software and is operational.
	Red	Flashing	Indicates that a serious fault has occurred and needs immediate attention.
Drive LEDs	Black	Off	If the LED is off while other drive LEDs are on, no drive is installed in the bay.
	Blue	Flashing	Drive is currently active. Note that all lights in a RAID system are active at the same time by design.
	Red	Solid	Indicates drive failure. Replace this drive as soon as possible. The system is no longer RAID protected until the drive is replaced and the RAID structure is repaired.
Ethernet Port	Black	Off	Indicates an inactive state.
	Green	Flashing	Indicates link activity.
	Amber	Solid	Indicates that there is a link connection

Where to Find Help

This manual provides step-by-step instructions and other important information regarding your WD product. It is meant for the person serving as the administrator of the WD Sentinel DS5100/DS6100. You can download translated versions and updates to this manual from *http://products.wd.com/updates*. For more information and news about this product, visit our website at *http://www.wd.com/*.

Additional Reference	Description
Basic Installation Guide	Included in the product box or available at *http://products.wd.com/WDSentinel-DS5100* or *http://products.wd.com/WDSentinel-DS6100* helps you install the WD Sentinel server.
WD Online Help	Specific descriptions and instructions accessed on WD-specific (Monitor) pages on the Dashboard.
Microsoft Online Help	• Access detailed explanations and instructions for a particular page by clicking the **Help** button ![Help] at the top right of the Dashboard. • Search for help on a specific topic or term by entering it in the Microsoft Online Help search field at the top right of the page. • Access the entire Microsoft Online Help system by clicking *Microsoft Online Help*.

Important: Not all Microsoft Online Help is applicable to the WD Sentinel DS5100/DS6100. The WD Online Help and this Administrator's Guide take precedence over the *Microsoft Online Help.*

3 | Connecting the Server and Getting Started

This chapter steps you though the process of connecting and setting up your
WD Sentinel DS5100/DS6100 server and connecting it to computers in your network.

User Roles and Responsibilities

Types of WD Sentinel DS5100/DS6100 Users

At a high level there are two categories of users who need to access one or more features of
your WD Sentinel server.

- **Administrator**—This is the person who performs the setup and routine
  management tasks on the WD Sentinel server. This person is also the holder of the
  Administrator password of your WD Sentinel server.

- **Users**—You can have up to 25 user accounts on your WD Sentinel server. These
  can be:

  - **Internal Users** – The internal users are typically the employees (including the
    Administrator) in your office, working locally or occasionally from a remote loca-
    tion (e.g. Sales Staff), who need to access business data and server resources.

  - **External Users** – The external users are the customers and business
    partners with whom you need to exchange business data.

The WD Sentinel server offers different paradigms for each type of user. The table below
provides a view into the usage model and tasks for each category of users.

Administrator (e.g., Business Owner)	Internal Users (e.g., Employees)	External Users (e.g., Clients or Business Partners)
Primary Setup Tasks • Physically connects the WD Sentinel server to the network. • Configures the WD Sentinel server itself. This is a one-time procedure. • Creates the Business Infrastructure by setting the Primary Domain names for the business. Example: Contoso.com • Joins a Mac or Windows PC to the Domain and WD Sentinel server storage by installing Connector software on it.	**Primary Setup Tasks** • None	**Primary Setup Tasks** • None

Administrator (e.g., Business Owner)	Internal Users (e.g., Employees)	External Users (e.g., Clients or Business Partners)
Primary User Interface • Dashboard - Signs in using the Administrator password (no username required).	**Primary Interface** • Launchpad - Signs in using the assigned user name and password. **Secondary Interface** • Remote Web Access - While accessing remotely, signs in using the assigned user name and password.	**Primary Interface** • Remote Web Access - Signs in using the assigned user name and password.
Dashboard Task Examples • Sets up user accounts and assigns permissions. • Manages shared folders. • Sets up and manages automatic backup schedule. • Manages WD Sentinel server settings, resolves any alerts, and monitors server performance. • Sets up Remote Web Access. • Manages updates. • Creates and manages iSCSI targets.	**Launchpad Task Examples** • Accesses data on shared storage. • Starts manual backups. • Launches Remote Web Access. **Remote Web Access Task Examples** • Accesses data on shared storage. • Connects to the PCs in the office remotely.	**Remote Web Access Task Examples** • Accesses data on shared storage.

Note: For each user account, the WD Sentinel server enables the Administrator to set granular permissions for various shared folders as well as server resources, such as Remote Web Access. At all times, the users are only able to access the data on the server and other server resources for which they have permissions.

How the WD Sentinel Fits into Your Office
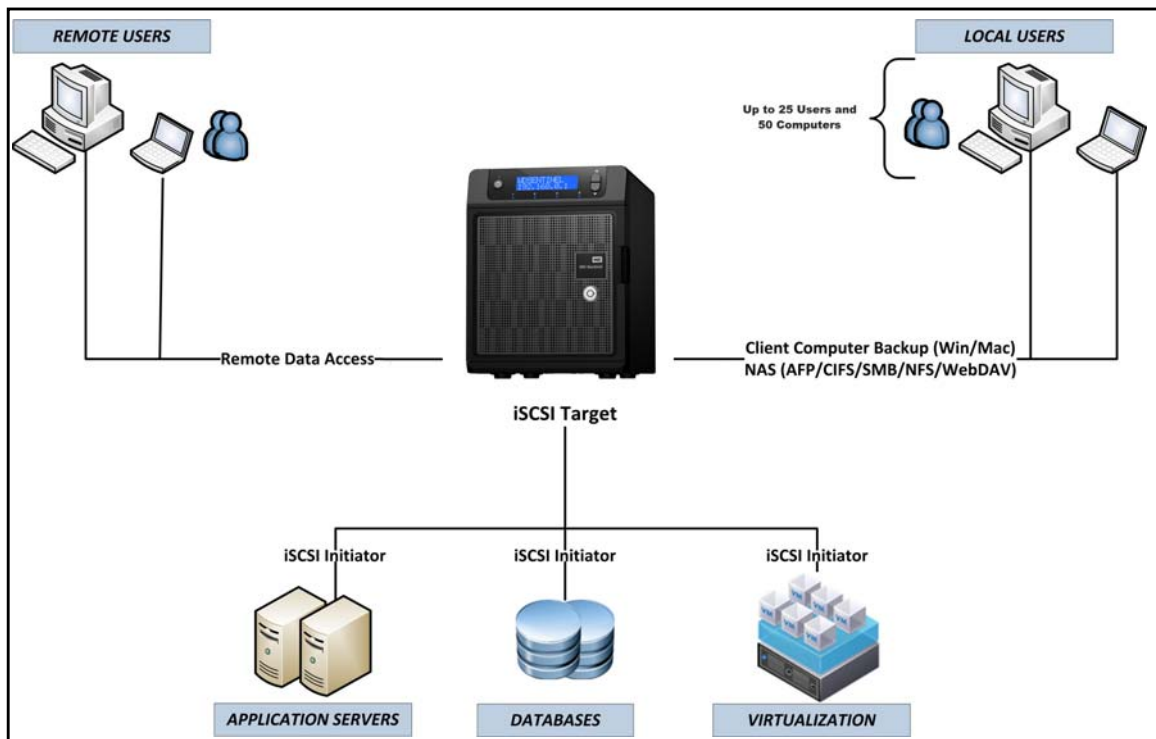
Connecting the WD Sentinel Server to Your Network

Use the following steps to physically connect your WD Sentinel DS5100/DS6100 server to your network.

1. Connect your monitor to the VGA port on the rear of your WD Sentinel server.
2. Connect your USB keyboard and USB mouse to the USB ports on the back of your WD Sentinel server.
3. Using the provided ethernet cable, connect the WD Sentinel server (either ethernet port 1 or 2) to a DHCP-enabled LAN.
4. Using the provided AC adaptor, connect the WD Sentinel server to an electrical outlet or a UPS.
5. Turn on your monitor.
6. Press the power button on the front of your WD Sentinel unit.
   Once the WD Sentinel boot up process is complete, the Windows Server 2012 Essentials Settings screen displays. The Power LED on the front of the WD Sentinel server will display a solid blue light.
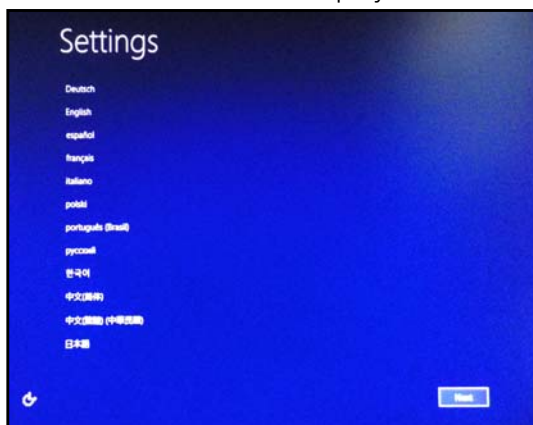
| WARNING! | This process takes a few minutes. Do not interrupt the process. Do not power off or disconnect the WD Sentinel server. |

Setting up your WD Sentinel Server (one time only)

Your WD Sentinel server is now ready to be configured. This section describes how to use the one time setup wizard to configure your server for first use.

Important: Ensure that you complete the entire process outlined in steps 1- 10 below. If these steps are not followed, your WD Sentinel will not work properly.

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1. Select the server language from the list provided.
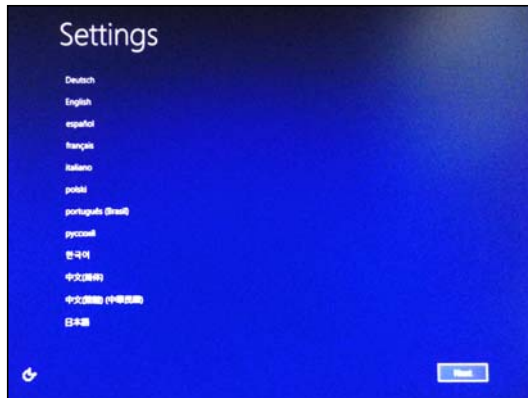
2. Verify the localization settings, or select the correct values from the drop-down lists, then click **Next**.
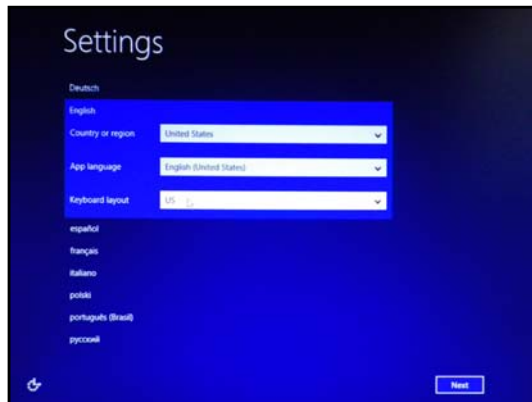
3. Read the Microsoft and Western Digital license agreements, then click **I accept**.
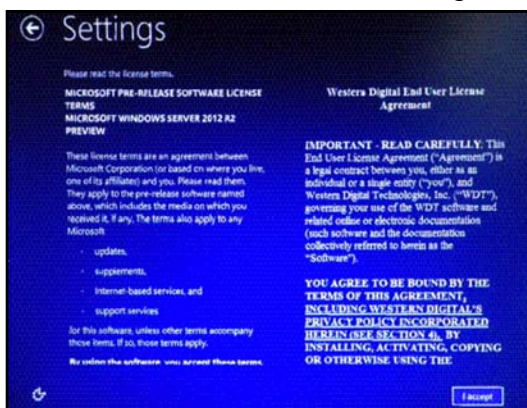
   The installation begins. Once the initial process is complete, you'll see the Configure Windows Server Essentials screen display.

Important: This process can take 2 - 3 minutes. Do not interrupt the process. Do not power off or disconnect the WD Sentinel server.

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4. Review the Configure Windows Server Essentials screen, then click **Next**.
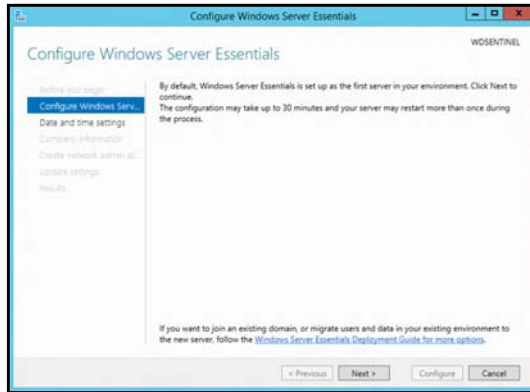
5. Review the date and time ensuring that it is correct, then click **Next**.
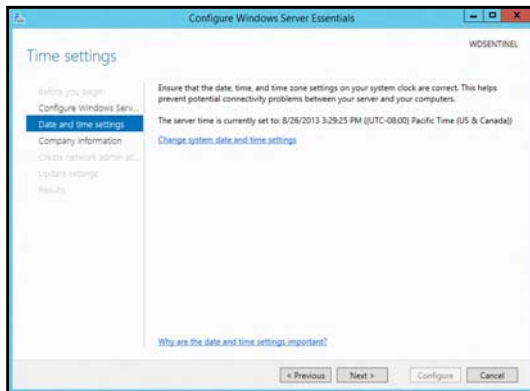
- If you need to change the system date and time settings:
    - Click **Change system date and time settings**.
    - Click **Change date and time...** on the Date and Time screen.
    - Update the date and time, then click **OK**.
    - Click **OK**, then click **Next**.

6. Enter your Company information for your device, then click **Next**.
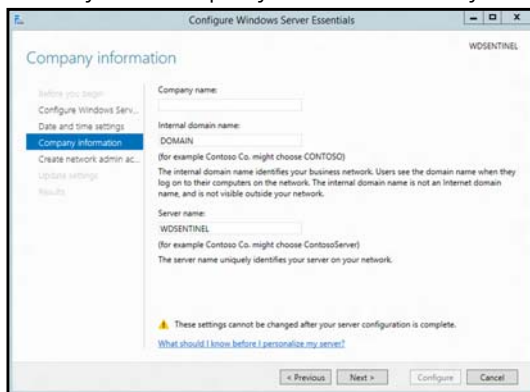
a. Enter your company name. You can type up to 254 characters in this field.

b. Enter your internal domain name (also known as the Primary Domain). This is the internal domain groups your server and client computers share as a common database of user names, passwords, and other common information. The name can be up to 15 characters long, can contain letters, numbers and dashes (-), can not start with a dash, must not contain spaces, and must not contain only numbers.

c. A suggested server name will be generated for you when you enter your company name. If you'd like to change this server name, enter a unique server name that is different than the default name "WDSENTINEL." The name can be up to 15 characters long, can contain letters, numbers and dashes (-), can not start with a dash, must not contain spaces, and must not contain only numbers.

WARNING!   **THIS IS THE ONLY TIME YOU CAN NAME YOUR WD SENTINEL SERVER. You must assign it a unique name to avoid naming conflicts should you ever have more than one WD Sentinel server on the network.**

---

7. Create your administrator account information, then click **Next**. The Administrator account should only be used to administer the server. Use a standard user account for tasks that do not require administrative credentials.
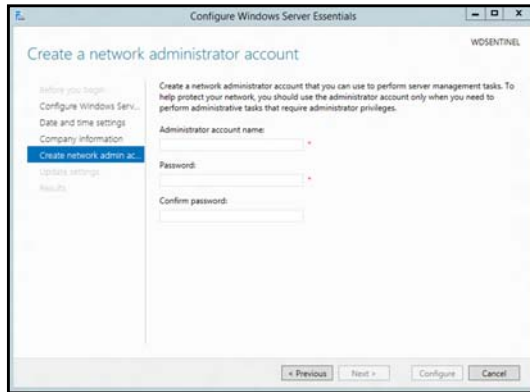
a. Enter an Administrator account name. This name can contain up to 19 characters, cannot be the same as the server name or the pre-defined user names such as "administrator" or "guest."

b. Enter and confirm a password (must be at least 8 characters long and contain at least three of the following categories: uppercase letters, lowercase letters, numbers, and symbols; spaces are allowed.) This is the Administrator password. You will use it later to connect the client computers to your WD Sentinel server and to access the Administrator Dashboard.

WARNING!   **If you forget the Administrator password, it may not be possible to recover it, and you could potentially lose all of your data. Make sure to record the password and keep it in a safe location.**

---

8.   Select your Update settings. This specifies how you'd like your device to install system updates.
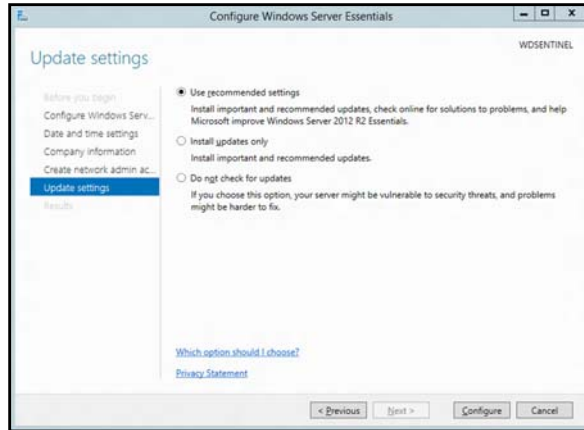
9.   Click **Configure.**
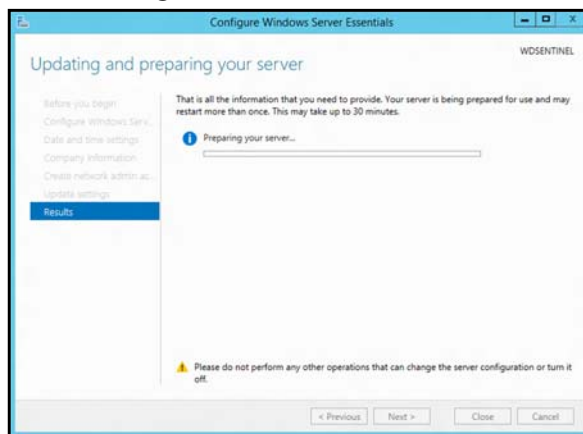
Important: This process can take an hour or more and may restart more than once. Do not interrupt the process. Do not power off or disconnect the WD Sentinel server.

---

10.   Review the information on the Configuration Completed screen, then click **Close**. Windows Server 2012 R2 is now installed.
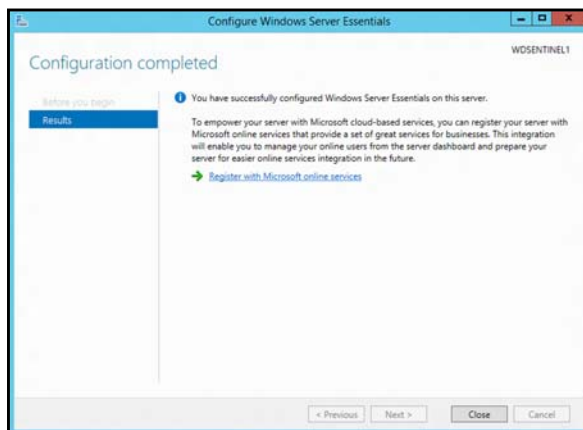
Connecting your Computers

Once you've set up your WD Sentinel server, you can connect up to 50 Windows PCs or Mac computers to your device.

Installing the Connector software joins the client computer to your WD Sentinel Server and installs Launchpad and Dashboard.

- Users use **Launchpad** to access server resources for which they have the rights.
- The Administrator (you) accesses **Dashboard** for such tasks as managing the WD Sentinel server, setting up user accounts, and managing access to shared folders.

Important Steps

Before installing Connector software on a computer, ensure that:

- The computers have all the latest mandatory and optional operating system updates installed.
- There are no active backups in progress on the WD Sentinel server.

    Note: Check for active backups on the Dashboard's **Devices** tab. The screen displays backups in progress.

Once the Connector software is installed, set up an automated scheduled backup (for after working hours) using the Dashboard. Running a manual backup during the initial connection process will impact overall system performance.

Connecting a Windows PC

Use the following procedure to connect a Windows PC to the WD Sentinel server.

For steps on connecting a Mac using the Connector software, see "Connecting a Mac" on page 23.

1. In the address field of an open browser window, enter **http://<servername>/connect.** Example: http://myserver/connect. <servername> is the name you gave your server in "Connecting the WD Sentinel Server to Your Network" on page 16.

2. Click **Download software for Windows**:
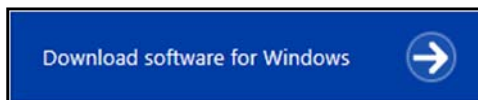
3. At the warning prompts, click **Run** and **Yes** as appropriate.

    Note: If prompted to do so, type the user name and password of an account that has administrator permissions on this client computer.

4. Review the Windows Server Essentials Connector license terms, then click **I have read and accept the license terms** checkbox.
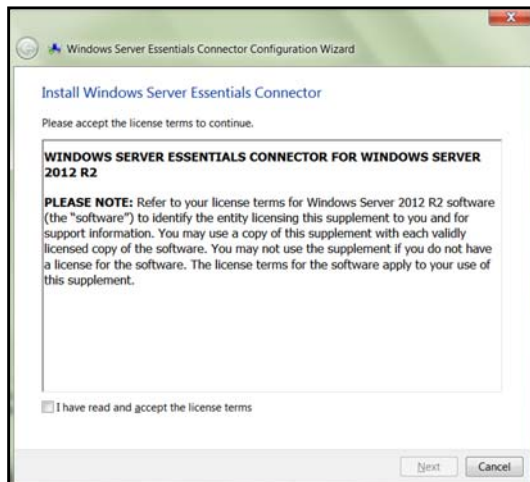
5. Click **Next**.

Installation begins. The progress bar identifies where you are in the installation process. The installation process may take 30 minutes or more to complete.

6. Once the installation is completed, follow the steps outlined in the Windows Server Essentials Connector Configuration Wizard.

7. When the Connector Configuration is completed, click **Finish**.
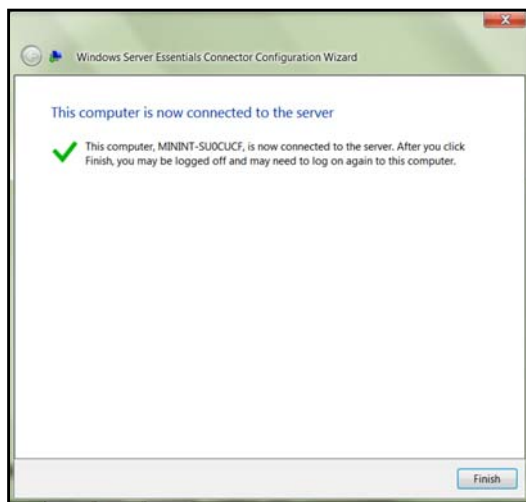
Connecting a Mac

Use the following procedure to connect your Mac computer to the WD Sentinel server.

For steps on connecting a Windows PC using the Connector software, see "Connecting a Windows PC" on page 21.

1. In the address field of an open browser window on the Mac you'd like to connect, enter **http://<servername>.local/connect.**
   Example: http://myserver.local/connect<servername> is the name you gave your server in "Connecting the WD Sentinel Server to Your Network" on page 16.

2. Click **Download software for Mac**:

   The Mac Connector software downloads to your Download directory.

3. Click the **Download** icon on the Menu bar at the bottom of the screen:

4. Select **MacConnector.dmg**. The MacConnector window opens.

5. Double-click **Connector for Mac**.

6. Review the warning screen, then click **Open**.
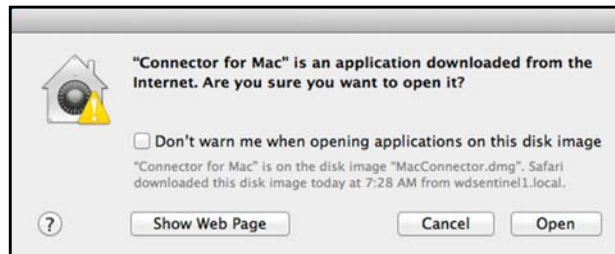
   Note: If prompted to do so, type the user name and password of an account that has administrator permissions on this client computer.

7. Review the "Connect a Computer to the Server" wizard Introduction, then click **Continue**.
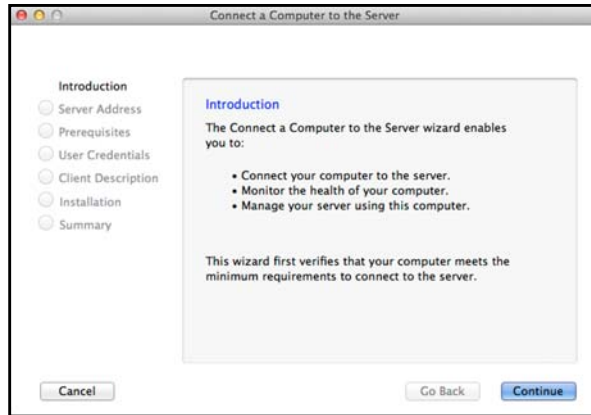
8. Enter the name you gave your server in "Connecting the WD Sentinel Server to Your Network" on page 16, then click **Continue**. (Example: companyserver)

   The software checks to ensure that your Mac meets the required prerequisites.

9. Follow the steps outlined in the Connect a Computer to the Server Wizard.

10. When the installation is completed, select the checkbox for opening the Windows Server Launchpad at startup, then click **Close.**
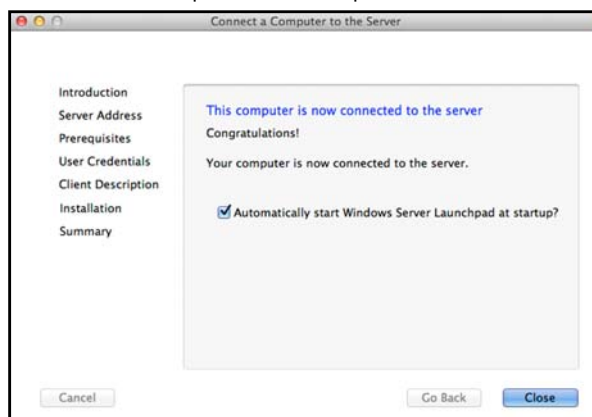
4 Managing the WD Sentinel Server (Dashboard)

Setting up WD Sentinel Server & Connecting Computers

This chapter assumes you have followed the Administrator's Basic Install Guide to initialize the WD Sentinel server and have connected at least one computer to the server. To review the setup steps See "Connecting the Server and Getting Started" on page 14. of this manual.

Important: As a best practice, perform the tasks outlined in this guide using a client computer on which you've installed the connector software, not directly from the WD Sentinel server.

Accessing the Dashboard

To access the Dashboard:

>   *Note:*   The Dashboard cannot be access from a Mac computer.

If your operating systems is...	Then...
Windows 8	• On your keyboard, click the Windows button ⊞ . • On the Start page, right-click in a blank area of the screen. • Select **All apps** 🗗 . • Under Windows Server Essentials, click **Windows Server Essentials Dashboard**.
Windows 7	• Click 🪟>**All Programs >Windows Server Essentials>Windows Server Essentials Dashboard.**

1. On the Dashboard Sign in page, enter the Administrator account name and password (created during setup) and click the **right arrow**:

The Dashboard Home page displays:

Navigation bar   Alerts icon   Settings and Help

Category pane   Task pane   Action pane
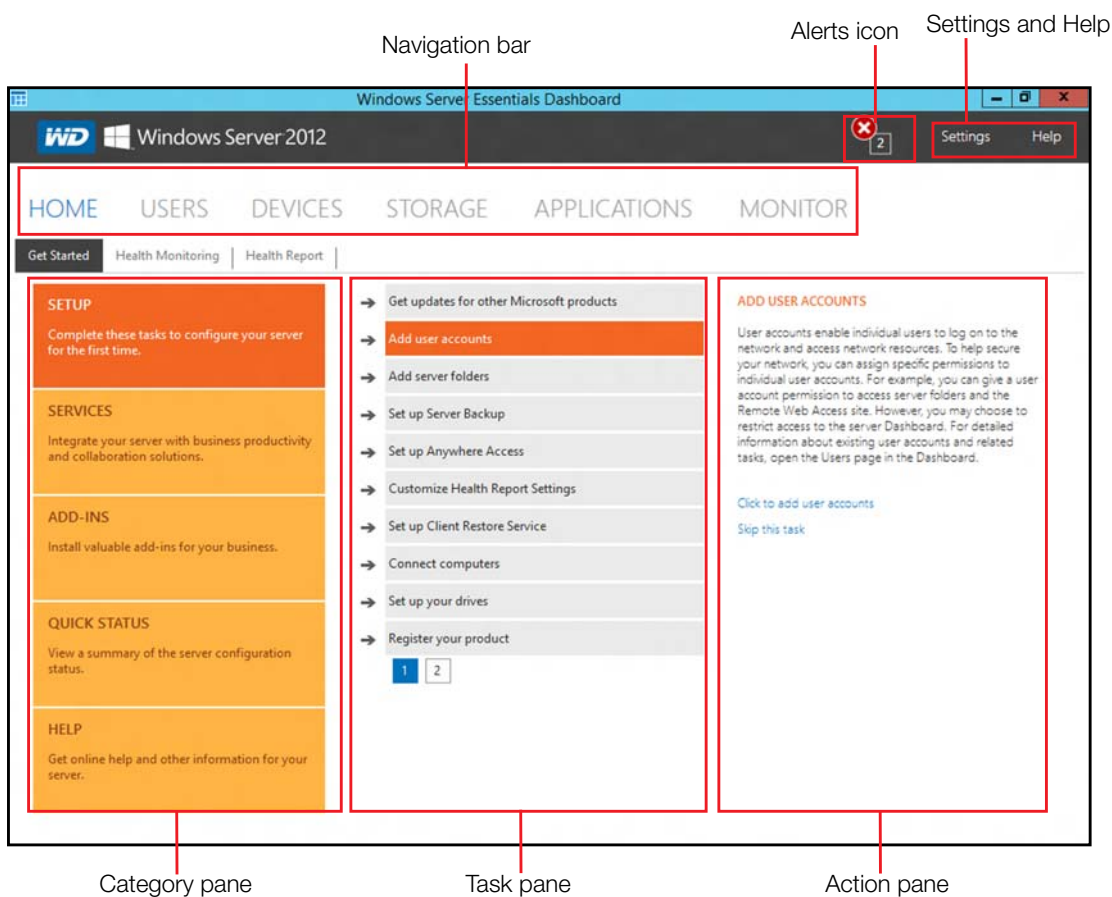
Tips for Performing Dashboard Tasks

When you initially open the Dashboard, a list of task displays on the Home page. Some of the tasks listed are necessary to finish setting up your WD Sentinel server properly. To help you prioritize these tasks, we've provided list of tasks and the order that we suggest you perform these tasks.

Task Priority	Task	Description
1	Setup your drives	Setting up your WD Sentinel drives allows you to configure your device using either RAID or Storage Spaces. *See "Setting Up Your Drives" on page 43.*
2	Add Server Folders	Server folders make it possible to group files together.
3	Add User Accounts	User Accounts allow you to provide individual users with the ability to log onto the network and access network resources. *See "Adding a User Account" on page 27.*
4	Setup Server Backup	Helps to protect your server data by backing it up on a regular schedule. *See "Backing up your WD Sentinel Server" on page 70.*

You can access the tasks listed above, from the Dashboard Home page on the Tasks pane.

Adding a User Account

Use the following steps to add a user account to the WD Sentinel server.

1. Open the WD Sentinel Dashboard (See "Accessing the Dashboard" on page 25.)
2. Click **Users** on the Navigation menu.
3. Select **Add a user account** in the Users Tasks section of the Task Pane.

4.   Enter the following information:
   a.   **First Name, Last Name**: Enter the user's first and last name.

   b.   **User account name**: Enter a user account name. This is used to log into the Launchpad.

   c.   **Password, Confirm Password**: Enter your password for the assigned user, then enter the same password to confirm the password.

   d.   **Level of access**: Select **Standard user** or **Administrator**.

5.   Click **Next.**
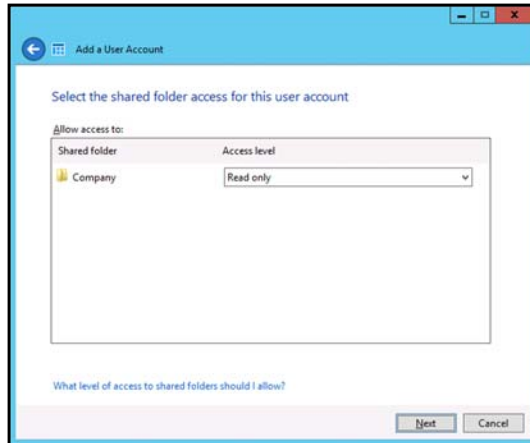
6.   Select the access levels for the user account from the pull-down menu.
   ▪ **Read Only**: Allows the user to only read the information in the associated files.
   ▪ **Read/Write**: Allows the user to create, change, and delete the information in the to the associated files.
   ▪ **No Access**: Choose this setting to deny access to a shared folder.

7.   Click **Next**.
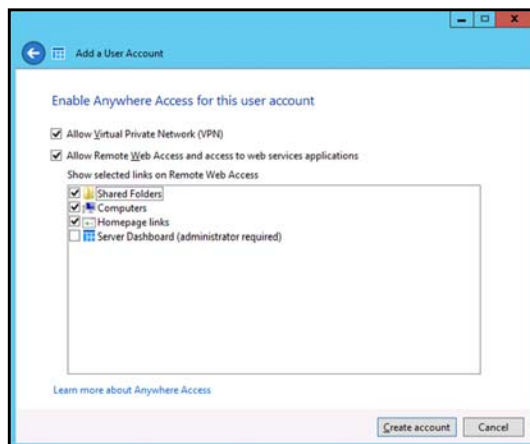
8.   Place a check next to the information you'd like the user to access using the Anywhere Access feature.
   ▪ Select **Virtual Private Network (VPN)** to allow VPN access for this user.
   ▪ Select **Allow Remote Web Access** you want to allow web access for this user, then select the links you will allow this user once they have web access.

9. Click **Create Account**.
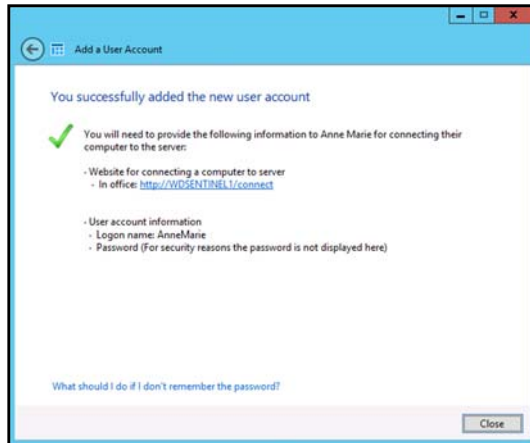
10. Click **Close**. Provide the user with their new user name and password.

Performing Dashboard Tasks

The Administrator uses the Dashboard to perform management and maintenance tasks you use to control how your server behaves on your network, who can access it, what information can be stored and retrieved, how it is organized, protected, and made available remotely.

For information about an additional task, backing up a computer to the WD Sentinel server, see "Backing up (Windows PC)" on page 60.

Using the Home Page
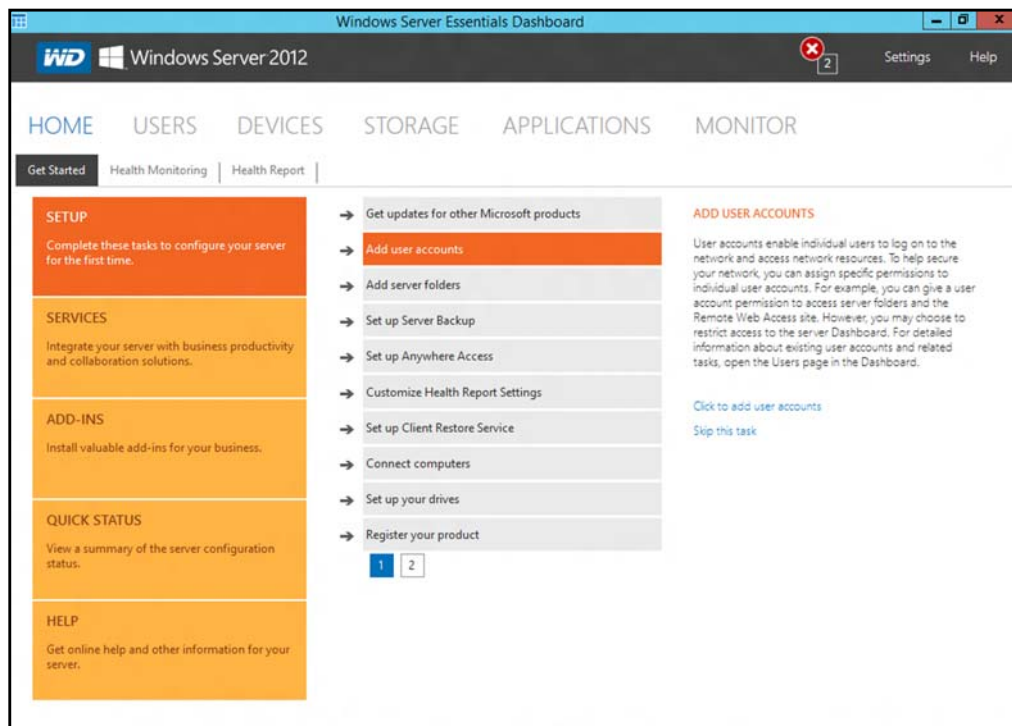
The Home page provides quick access to tasks and information that help you customize your server and configure key features.

- The **Category** pane, on the left side of the page, provides quick access to information and configuration tools that help you set up and customize the server. Click a category to display tasks and resources that are associated with that category.
- The **Task** pane in the middle of the page, lists some of the recommended tasks to perform the first time you sign in to the Dashboard. To perform these tasks from the Home page, just click the relevant links.
- The **Action** pane on the right side of the page, provides a brief description of the task and offers links to associated actions.

The rest of this chapter discusses the tasks the Administrator can perform on the Dashboard.

Important: Ensure that you perform the tasks outlined on the Home page Task pane prior to performing other tasks.

For a full description of the typical components of a page, including the Critical, Warning, and Informational Alert icons, see the *Microsoft Online Help*.

Home Page Category Pane

The Home page contains five areas, summarized below:

Tab	Description
Setup	Complete basic tasks that will get you started with the WD Sentinel server. For information about these tasks, see the *Microsoft Online Help.* **Best Practices:** • Complete the Setup tasks on the Home page of the Dashboard. • **Create at least one active user account the first time you access the Dashboard.**
Services	Integrated your WD Sentinel server with business productivity and collaboration solutions.
Add-Ins	Select add-ins to enhance your server and business.
Quick Status	Displays high-level server status. Click a status to view information and configuration options for that feature. When you complete all of the tasks in the SETUP category, this category appears at the top of the Category pane.
Help	Click a link to visit the *Microsoft Online Help*. You can also enter a word or term in the Search box to search for help on within the Microsoft Online Help.

Home Page Tasks Pane

The center pane displays the various tasks that can be performed to enhance the properties of the WD Sentinel server. This list of task and information changes depending on the category selected in the left Category pane.

Home Page Action Pane

The Action pane displays a brief description of the selected task. You are also presented with the opportunity to open configuration wizards to act on the selected task or, in some cases, skip a task.

Managing User Accounts

The Users tab allows you to add and manage up to 25 user accounts.

On the navigation bar, click **Users**.

You can now:

- View, add, manage, delete, and activate/deactivate user accounts.
- Manage domain user accounts (if joined to an Active Directory Domain).
- Manage passwords.
- Set password policies.
- Manage Anywhere Access.
- Assign user access privileges to shared folders and server resources.
- View remote connection status.

For detailed instructions on performing any of these tasks, consult *Microsoft Online Help*.
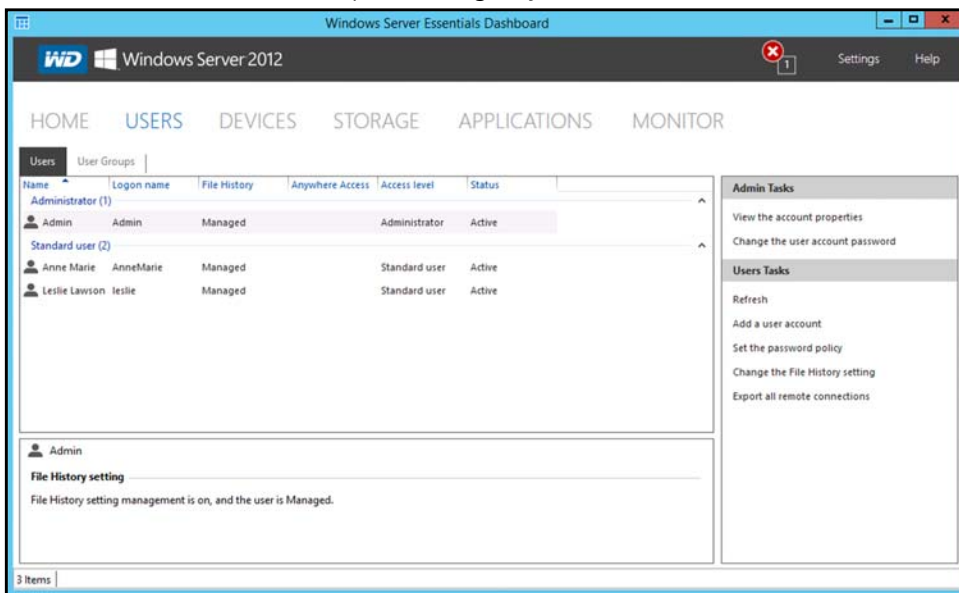
Managing Devices

After you connect your computers to the Windows Server 2012 Essentials network, you can view the health and backup status of computers on the network and configure backups for the server and client computers. You can also apply group policies to Windows 7 and Windows 8 client computers to help make them more secure. Available tasks include:

- Viewing a list of computers connected to your server.
- Viewing computer properties and health alerts for each connected computer.
- Setting up and managing computer backups.
- Restoring files and folders to computers.
- Establish a Remote Desktop connection to a computer
- Customize Computer Backup and File History settings

For detailed instructions on performing any of these tasks, consult *Microsoft Online Help*.
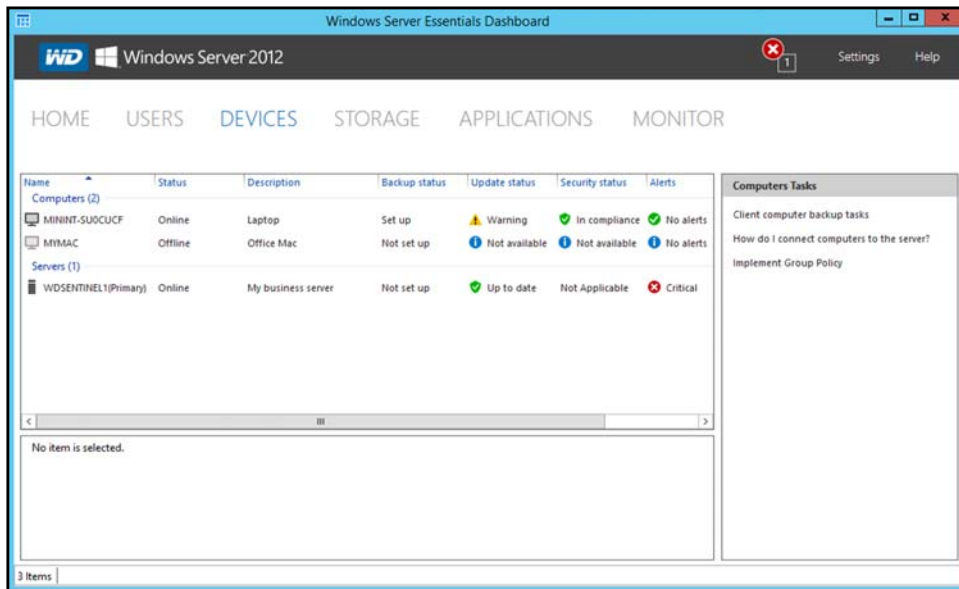
Managing Storage

The Storage section contains two tabs:

- The **Server Folders** tab allows you to view and manage the properties of the server folders. This page also includes tasks to open and add server folders.

    Note: If you have data files saved on the C: drive (your boot drive), See "Moving a Server Folder" on page 50. to move these files to your data drives.

- The **Hard Drives** tab allows you to view and check the health of the drives that are attached to your server.

For detailed instructions on performing any of these tasks, consult *Microsoft Online Help*.
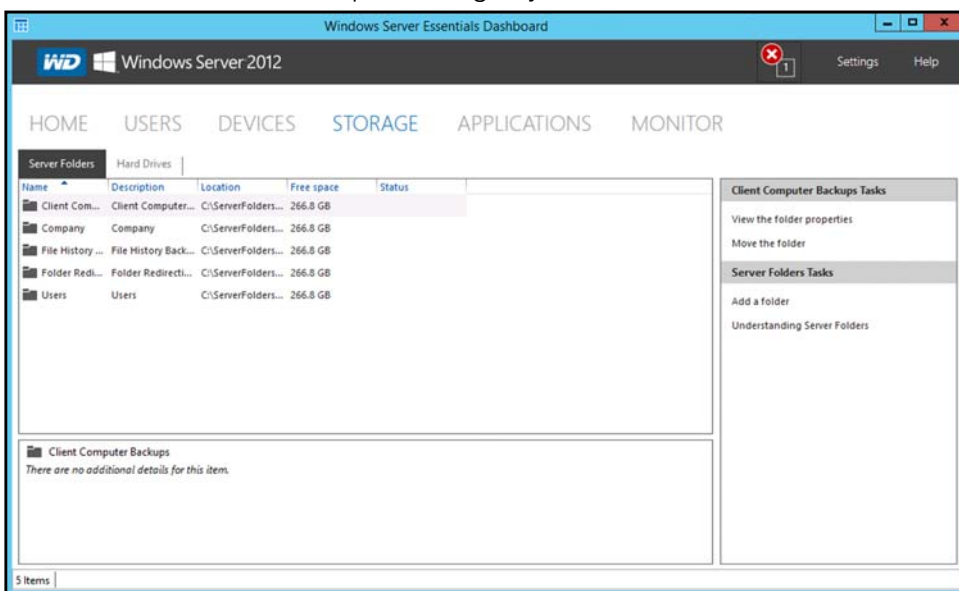
Monitoring Applications

The Applications section of the Windows Server 2012 Essentials Dashboard includes tasks that help you view and manage the Add-ins that are installed on the server and to discover new add-ins Microsoft Pinpoint®.

For detailed instructions on monitoring add-ins and using Microsoft Pinpoint, consult *Microsoft Online Help*.
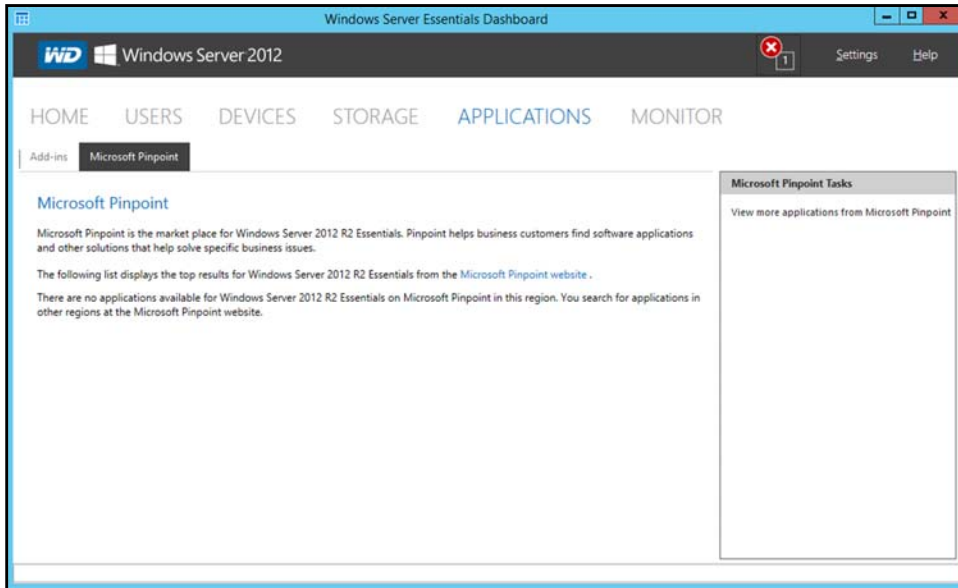
Monitoring System Health and Alerts

The Monitor page of the Dashboard includes tasks that help you view and manage the WD Sentinel server storage system. To open the Monitor module, click the **Monitor** icon on the navigation bar. The Monitor module includes two tabs, **Health** and **Software Update**, and related tasks in the panel on the right.

Health Tab

The **Health** tab and related tasks enable you to monitor the status of the storage drives, RAID configuration, power supplies, temperatures, fans, CPU, audible alerts, and network connections.

To open the **Health** tab, click the **Monitor** icon on the navigation bar:

Settings	Description
Network Health Ethernet 1 & 2	Displays the status (Connected or Not connected) of the server's network connection(s). If you use both Ethernet ports and one fails, the other takes over, allowing the WD Sentinel server to remains operational over the network.
System Temperature	**System**: The temperature within the server enclosure. **CPU**: The status, temperature, and status description for the CPU. The status may be: • Normal • Warm • Hot **CPU Fan**: The status, fan RPM and status description for the CPU fan. The status may be: • Normal • Warm • Hot **System Fan**: The status, fan RPM, and status description of the System fan. The status may be: • Normal • Warm • Hot
Power Adapter 1 & 2	The server has two power ports. If you use both and one fails, the other takes over and the WD Sentinel server remains operational. The status may be: • Active • Inactive

Settings	Description
Audible Alerts	The status of the warning and critical alerts for WD Sentinel server. The audible alerts may be: • On • Off **Action**: Click **Configure** to set Audible Alerts (See "Set audible alerts" on page 37.).

Internal Storage	Displays storage information associated with the WD Sentinel server. The WD Sentinel server holds up to four of WD's hard drives optimized for quality, reliability and performance.
	
	Data Drives & Boot Drives
	Displays the type, status, size, and model number of the data drives used by your WD Sentinel server. For a list of compatible data drives, visit *http://support.wd.com* and see Knowledge Base Answer ID 9443.
	Type of Drives: The type of drive used within your device:
	
	• **Preferred**: Indicates that this is a preferred drive. Preferred drives preform optimally with your device and should always be used whenever possible. Preferred drives are fully tested and approved for use with your device. The message text displays in **green**.
	• **Supported**: Indicates that this is a supported drive. Supported drives are not the optimal drives for your device but are part of the same drive family. These drives are not fully tested with this device. The message text displays in **green**.
	• **Unsupported**: Indicates that this is an unsupported drive. Unsupported drives have not been tested with this device and should be used at your own risk. The message text displays in **red**.
	   WARNING: Using an unsupported drive in your device immediately voids your warranty and may cause damage to your device and data.
	
	Status of Drives: The status of a drive may be:
	
	• Normal
	• Failed!: Visit WD Store to replace.
	   CAUTION: Imminent failure detected. Please replace this hard drive immediately.
	
	Action: Click Configure to set up your data drives (See "Setting Up Your Drives" on page 43.)

Health Tasks

Find compatible hard drives

To view a list of WD drives that can be used in the WD Sentinel server:

- Click **Compatible Hard Drives** in the Task pane. A pop-up screen lists each drive with its model number, description, and maximum capacity.
- Click **WD Store** to purchase compatible drives.
- Click **OK** to exit.

To buy a compatible WD drives that can be used in the WD Sentinel server:

- Click **Buy** on the right side of the Internal Storage area of the Health tab.
- Follow the instructions on the screen to purchase your WD compatable drive.

Request Support

The Request Support function collects information about your WD Sentinel device and sends a diagnostic report to the WD Support server. It then opens the WD Support website, where you can enter a few details regarding the problem to route it to the appropriate support team.

> *Note:* If you do not want to submit the diagnostic logs, use the regular WD Support page at *http://support.wd.com*.

To access WD Customer Support automatically:

1. Click **Request Support** in the Tasks pane. The Request Support window displays.

2. After reading the information on the screen, click the "**I agree and would like to proceed.**" check box, then click **Proceed**. The WD Support Ask a Question page displays.

   > *Note:* The first time you do this, an Internet Explorer Security Screen displays. Clear the check box and click **Close**.

3. Complete the online form and click **Submit Question**. A diagnostic report of the WD Sentinel server is automatically attaches to the form. Your request is added to the WD Support queue and assigned a confirmation number. You will receive an email from WD Support regarding your question.

Important: For faster service/phone service, call WD Support. For the latest phone numbers and contact information in your region, see "Contacting WD Technical Support" on page iii or *http://support.wd.com*. Have your confirmation ready when you call.

View system performance

Monitor your system performance using the Windows Resource Monitor which is available from the Advanced tasks pane. The Resource Monitor allow you to see and control how your system resources (such as the CPU, memory, disk, and network) are being used by processes and services.

To access the Windows Resource Monitor:

▪ Click **View System Performance** in the Advanced tasks pane. The Resource Monitor displays.

For complete instructions on how to use the Windows Resource Monitor, click **F1** within the Windows Resource Monitor application.

Set audible alerts

The Audible Alert provides audible notification from your WD Sentinel server when there are warnings or critical alerts to the server.

To set Audible Alerts:

1. Click **Audible Alerts Settings** in the Advanced tasks pane. The Audible Control window displays.

2. Click **Select** next to the type of alert for which you like to hear an alarm.
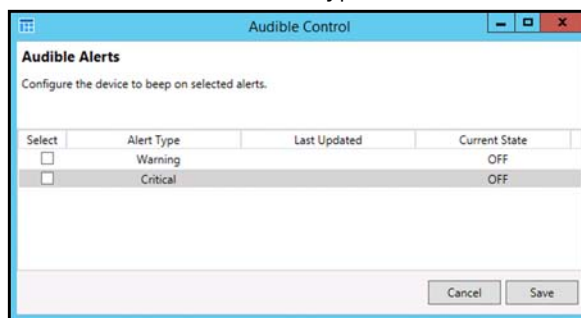
▪ **Warning**: The alarm sounds for all warning alerts.

▪ **Critical**: The alarm sounds for all critical alerts.

3. Click **Save**. Your audible alarm has been set. When an alert of the type you selected occurs, an audible sound will emit from your WD Sentinel server.

Updating Software

Periodically, WD issues software updates for your WD Sentinel server. The Software Update tab within the Monitor module allows you to update WD Sentinel device software automatically or manually. Please note that this tab only allows you to apply software updates issued by WD. To manage or apply Microsoft software updates, go to **Server Settings** on the Dashboard.

A best practice to ensure that your system software stays current is to enable automatic updates on your WD Sentinel server (See "Automatic Updates of WD Software" on page 38.)

Manual Updates of WD Software

To check for software updates and update the software:

1. Click the **Software Updates** tab.
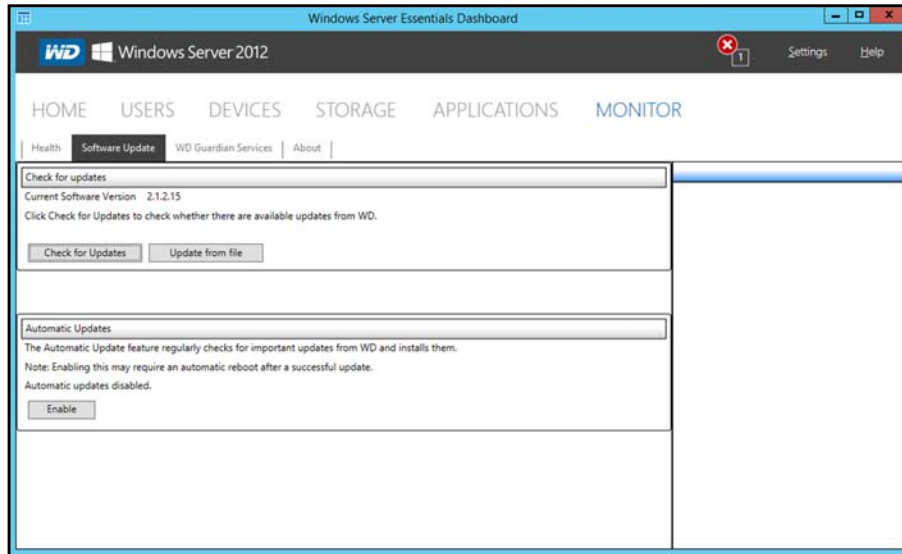
2. You have two options. You may check for updates online or update from a file:

    To use the online update:

    a. Click **Check for Updates**.

    b. If an update is available, click **Download** and **Install** to update your WD Sentinel server.

    To update from a file:

    a. The software update files can also be downloaded from the WD Support site at *http://support.wd.com*. Once you download the available firmware updates for the WD Sentinel server, copy the file to a shared folder such as the Documents share on the server and select the file to update.

    b. Click **Update from file** and then locate and select the update file you copied to your server.

    c. Click **Open**. The system applies the software update. The system automatically restarts the server if a reboot is required to complete the software update.

Automatic Updates of WD Software

Enabling **Automatic Updates** on your WD Sentinel server causes the server to check for available software updates from WD on a scheduled basis and apply the updates automatically.

To set a schedule for automatic updates:

1. In the **Automatic Updates** section, click **Enable**.
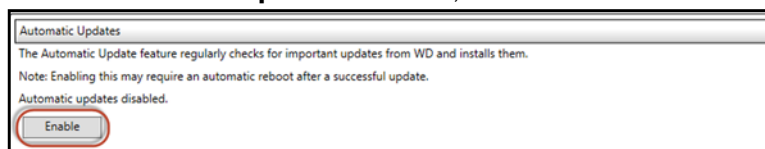
2. Click the **Change** link and select the day and time you want the WD Sentinel server to check for updates every week, and if an update is available, install it. (Example: every Sunday at 3:00 AM)

Automatic Updates

The Automatic Update feature regularly checks for important updates from WD and installs them.

Note: Enabling this may require an automatic reboot after a successful update.

Automatic updates enabled. Updates will occur everySunday at 1:00 AM Change

    Disable   Apply
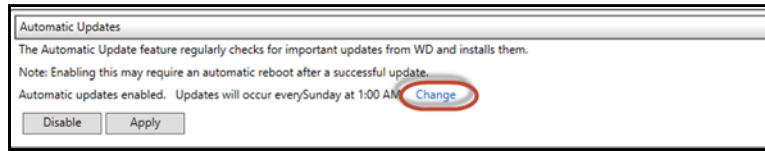
3. Click **Apply**.

Updating Microsoft Software

You can update the Microsoft software for the WD Sentinel DS5100/DS6100 using the Server Settings page. See "Managing Server Settings," below.

Managing Server Settings

Important: Unless otherwise noted, *Microsoft Online Help* provides complete instructions for using these pages.

1. Click **Settings** on the icon bar to enable, set up, and control WD Sentinel server settings.
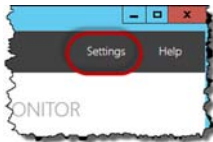
2. The General page displays. The left panel contains links to the rest of the Server Settings pages.
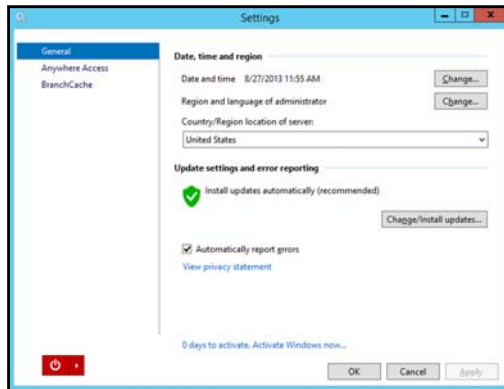
Following is a summary of the purpose of each of the Server Settings pages.

General

- **Shutdown or restart the server**—This is the safest method to shut down or restart the server. It insures that the RAID system shuts down cleanly. See "Shutting Down and Rebooting the Server" on page 40 for instructions.
- **Change the date, time, and location of the server**—You can change the settings you established at initialization.
- **Change the behavior of the Windows update**—You can change the settings for updating the Microsoft software.

Anywhere Access

Anywhere Access enables your network users to access WD Sentinel server resources from any location with an Internet connection, at any time, and on any device. You can access shared folders and files (that you have permission for) on the server as well as on your networked computer.

Enabling Anywhere Access

Use the following steps to enable Anywhere Access on the Settings page. Anywhere Access is turned off by default.

Note: The Home page provides a Setup task for enabling Anywhere Access by clicking the **Setting Up Anywhere Access** link.
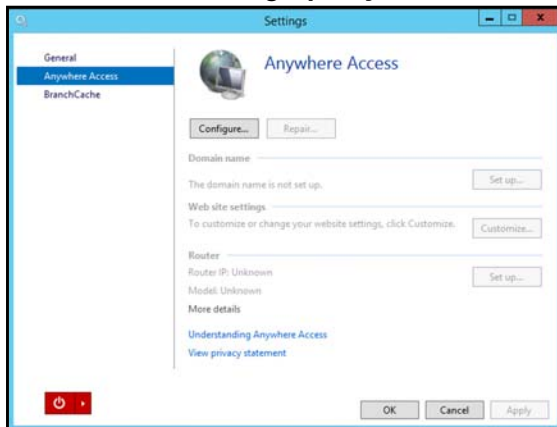
1. Under **Settings**, click **Anywhere Access** in the panel on the left.
2. Click **Configure** and complete the wizard to set up your router, set a domain name, and change Internet settings.
3. Grant Remote Web Access privileges if you want a user to access the WD Sentinel server, shared folders, computers, media, Home page links, and the Dashboard (administrators only) when you create or update a user account.

   To view a user's current privileges, click the **Users** icon in the Navigation bar.

   Note: The Guest account cannot have Remote Web Access.

   Note: Refer to *Microsoft Online Help* for detailed information about setting up remote web access and for troubleshooting connection issues.

Shutting Down and Rebooting the Server

The WD Sentinel server is intended to be on at all times, providing shared data and backup services. A best practice is to avoid turning the unit off. However, if it does become necessary (for example, moving the server to a different location), follow the procedures below to shut down or reboot the server

It is very important that the WD Sentinel server be shut down or restarted in a clean and graceful manner through the **Settings** section in the Dashboard.

WARNING! **To avoid a potentially unclean shutdown that could corrupt the RAID configuration, shut down the server through the Dashboard.**

To shut down or restart using the Dashboard (Preferred method):

1. Click **Settings** in the icon bar.

2. To shut down, right-click the red button in the lower left corner of the page and select **Shut down**.

3. To restart, right-click the arrow and select **Restart.**

4. When the confirmation message appears, click **Yes**.

   Note: You can also shut down your WD Sentinel server by holding the power button on the front of the device for a few seconds and then releasing it. The "Shutting Down" message displays on the front of the unit.

Rebooting the WD Sentinel Server

Following is the cleanest procedure for rebooting the WD Sentinel server.

   Note: This procedure should only be used after you've logged into the Dashboard and created a user account.

1. On the Dashboard Home page, click the **Settings** link on the upper right of the window.
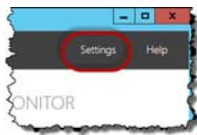
2. On the bottom left of the General screen, click the shutdown arrow and select **Restart**:
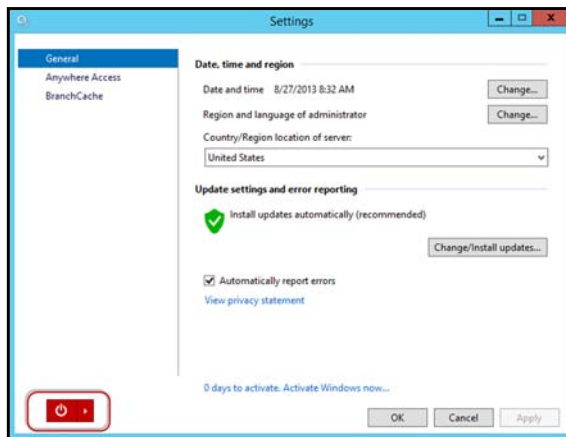
5 Managing Storage on the WD Sentinel Server

WD Sentinel Server RAID Storage

RAID is the acronym for Redundant Array of Independent Disks. The WD Sentinel server provides automatic RAID service to assure the integrity of the storage system. For redundancy, a minimum of two drives must be active. The operating system and all data are protected by the RAID structure. The server automates the management of the RAID.

Your WD Sentinel server uses RAID 5, which offers fast performance by striping data across all drives, This RAID level provides the system with both redundancy and optimum capacity.

	2 TB Drives	**3 TB Drives**	**4 TB Drives**
RAID Level 5 (4 Drives)	8 TB Capacity	12 TB Capacity	16 TB Capacity

If a drive in the array fails, the data and operating system are still intact, and the WD Sentinel server continues to provide service.

> **Important:** If you have one bad drive, the server operates normally. However, if a second drive fails, the server will no longer operate. You will need to recover the server and/or replace the failed drive(s). A best practice is to have a replacement drive readily available.

The WD Sentinel server lets you know when a drive fails in the following ways:

- The LED below the bad drive is solid red.
- The Power LED on the WD Sentinel server flashes red, indicating a serious fault.
- An email Alert is posted if you have set it up to do so. (See "Monitoring System Health and Alerts" on page 33.)

To recover from a failed drive, simply replace the drive (the one with the red LED over the drive) with an approved drive for the WD Sentinel server (see "Find compatible hard drives" on page 36)

Once replaced, complete the steps outlined in "Recovering from a Failed Drive" on page 48 to integrates the new drive into the RAID array. This process takes many hours to accomplish. Progress of this operation appears on the Dashboard. While the server is verifying the RAID array, your data continues to be available although the performance may be impacted.

The WD Sentinel server RAID system has no downgrade options. Once available capacity has been increased, the Administrator cannot decide to subsequently reduce capacity by removing a drive. The removal of a drive degrades the RAID and makes it vulnerable to single drive failure.

Storage Spaces

Storage Spaces is a Windows storage virtualization technology which succeeds Logical Disk Manager and allows for the organization of physical disks into logical volumes similar to Logical Volume Manager (Linux), RAID1 or RAID5, but at a higher abstraction level.

A storage space behaves like a physical disk to the user, with thin provisioning of available disk space. The spaces are organized within a storage pool, i.e. a collection of physical disks, that can span multiple disks of different sizes, performance or technology (USB, SATA, SAS). The same storage pool can host multiple storage spaces. Storage Spaces have built-in resiliency from disk failures, which is achieved by either disk mirroring or striping with parity across the physical disks.

Setting Up Your Drives

Use the following steps to set up your WD Sentinel device drives.

1.   On the Dashboard Home page, click **Setup>Set up your drives**.
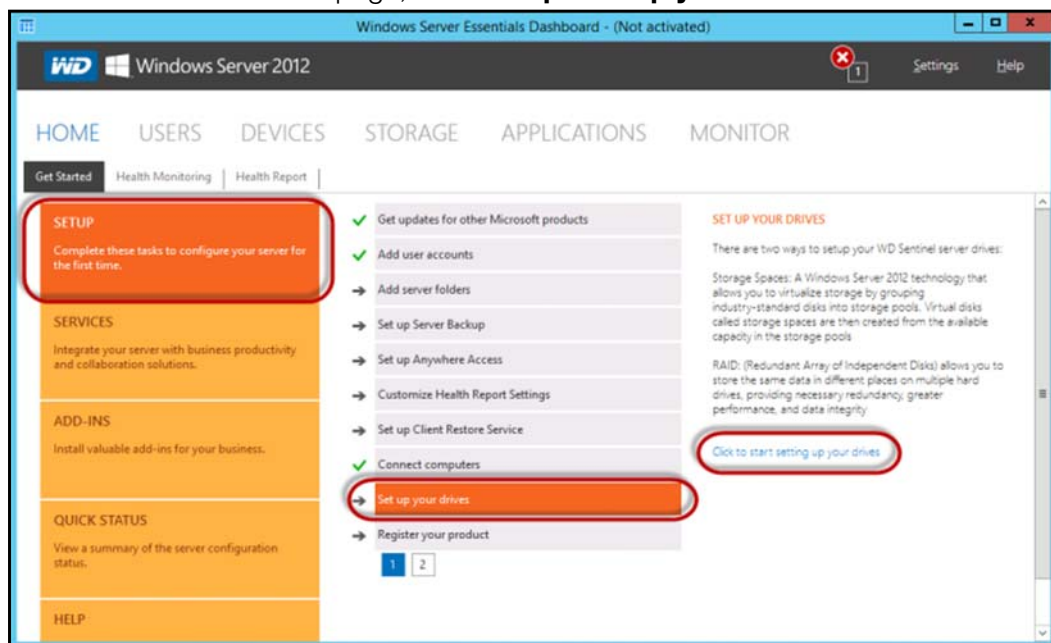
2.   Select **Click to start setting up your drives**. The Set Up Your Drives wizard displays.
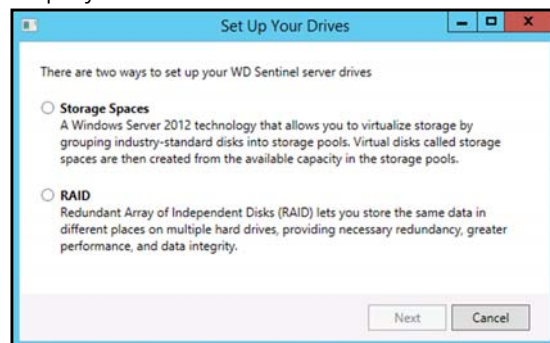
3. Select your storage method. Options are:
   - **Storage Spaces**: A Windows Server 2012 technology that allows you to virtualize storage by grouping industry-standard disks into storage pools. Virtual disks called storage spaces are then created from the available capacity in the storage pools.
   - **RAID**: Redundant Array of Independent Disks (RAID) lets you store the same data in different places on multiple hard drives, providing necessary redundancy, greater performance, and data integrity.

4. Click **Next**.
   - For Storage Spaced, continue to "Setting up Storage Spaces" on page 44
   - For RAID, continue to "Setting Up RAID Storage" on page 45.

Setting up Storage Spaces

1. On the Storage Spaces screen, click **Create a new pool and storage space**.
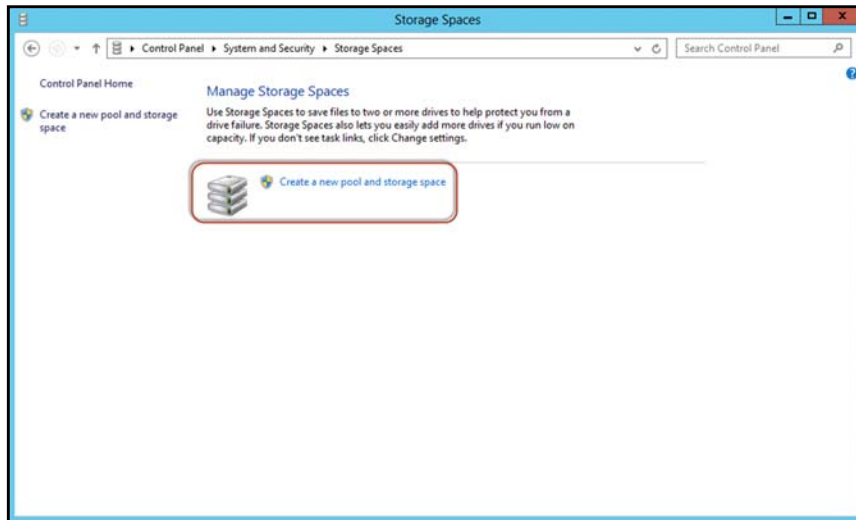
2. At the warning prompts, click **Yes**.

3. Select the drive(s) you'd like to set up with Storage Spaces, then click **Create Pools.**
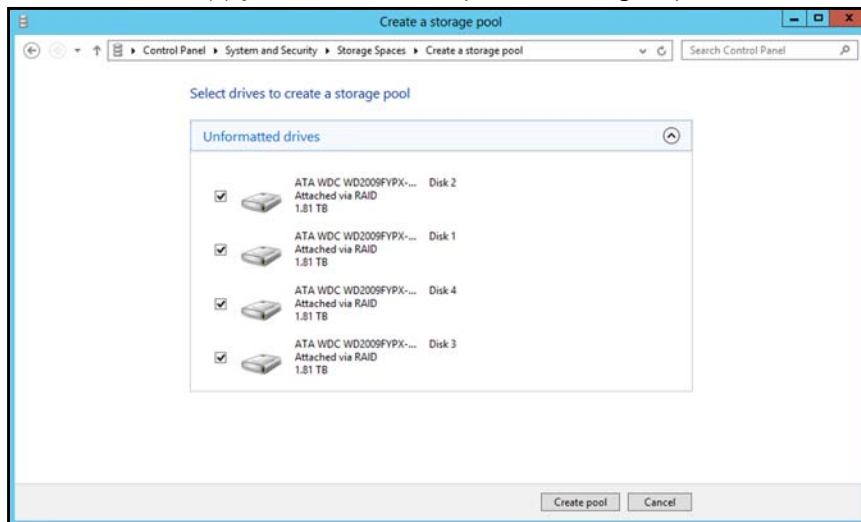
4. Enter the size, resiliency type, and size of your new storage space. then click **Create Storage Space**. Your storage space is created.
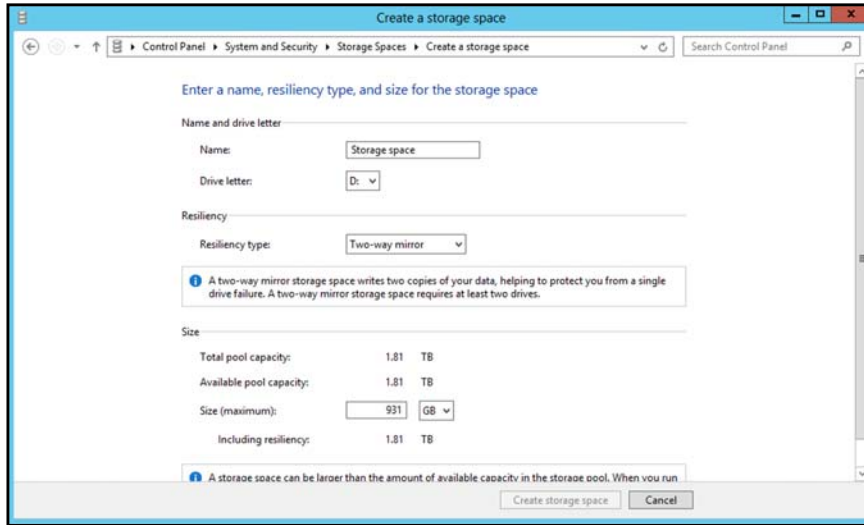
Setting Up RAID Storage

1. On the WD RAID Storage Utility screen, in the Storage area, select **Adapter 0**.
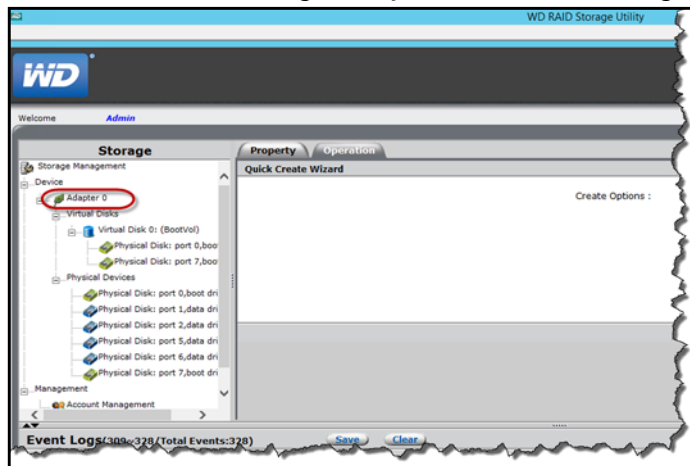
2. Hover your mouse over the Operations tab, then select **Create RAID**.
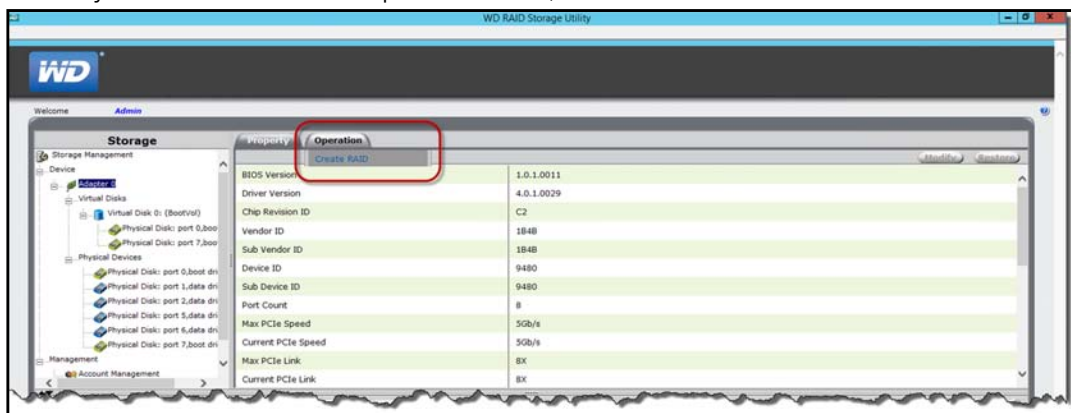
3. On the Create Options pull-down menu, select a RAID option.
    - It is a best practice to select RAID 5 for your WD Sentinel server storage.
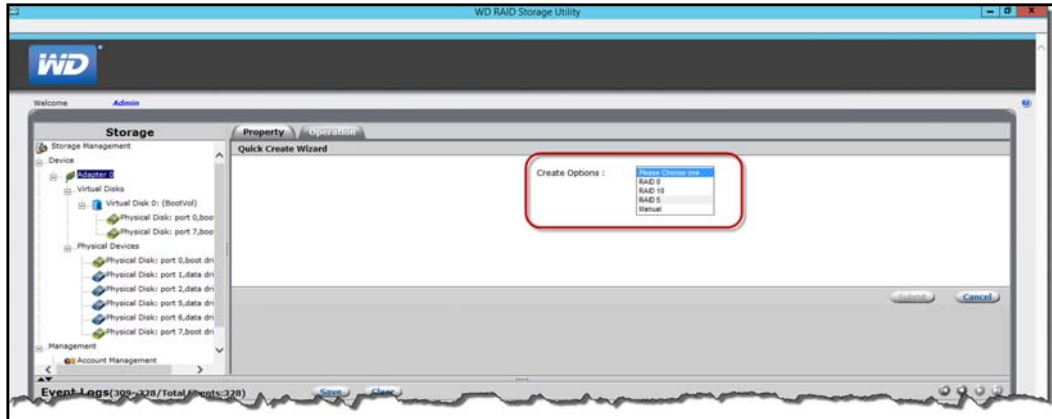
4. Click **Submit**.
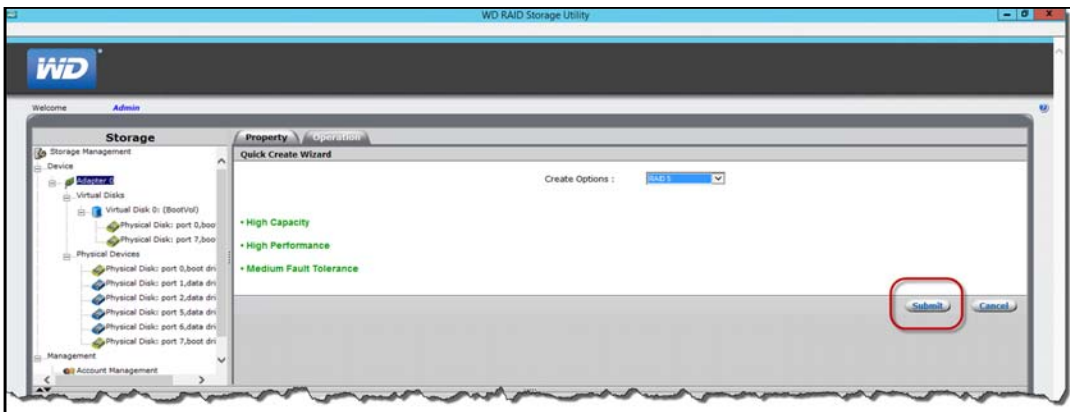
5. Click **OK**. Your RAID storage is created. Now, lets mount your new disk.
6. Right-click the lower-left corner of your desktop, then select Disk Management.
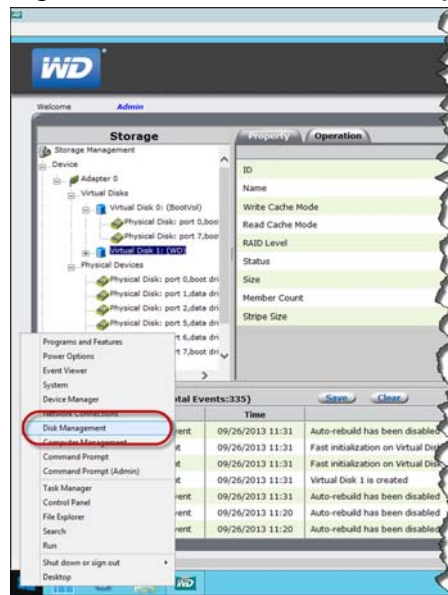
7. On the Initialize Disk screen, click **OK**.
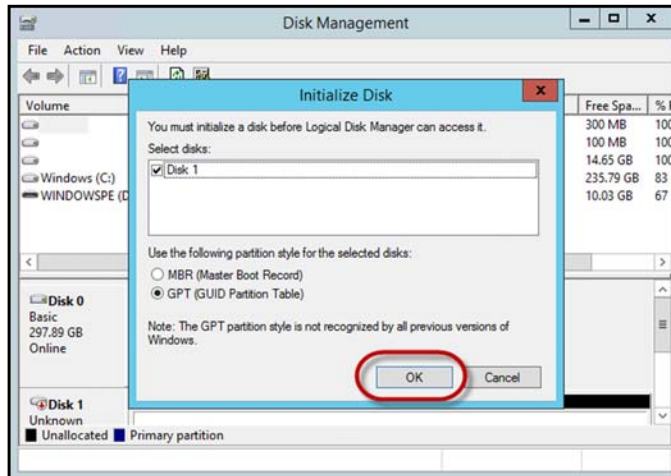
8. On the Disk Management screen, right-click your initialized disk (Disk 1). then select **New Simple Volume**.
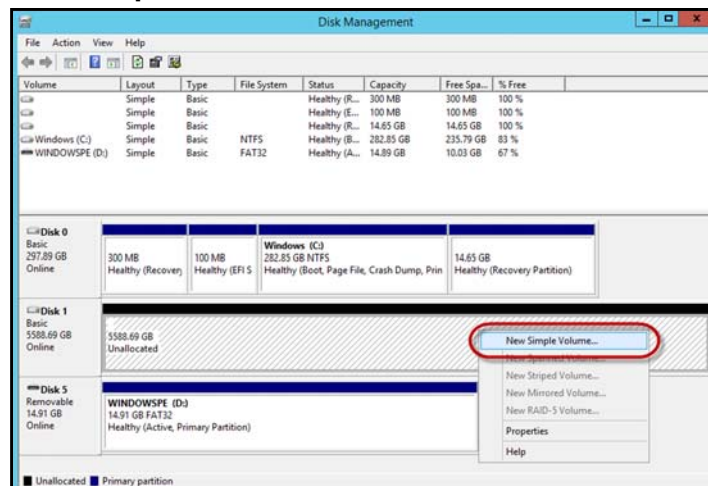
9. Follow the steps outlined in the New Simple Volume Wizard.
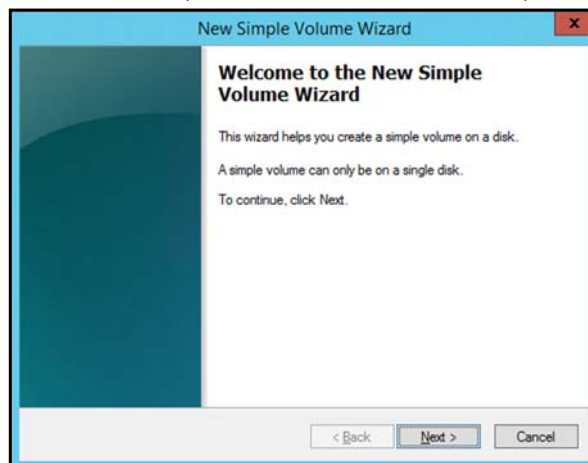
10. Once the volume is created, click the [x] to close the DIsk Management screen.

11. On the WD RAID Storage Utility, click the [x] to close the screen. Your RAID volume is now created and mounted.

Recovering from a Failed Drive

Use the following steps to recover from a failed drive.

1. Replace the drive (the one with the red LED over the drive) with an approved drive for the WD Sentinel server (see "Find compatible hard drives" on page 36).
2. Once replaced, access the device Dashboard Monitor page.
3. Click the **Configure** link, located on the Health tab in the Internal Storage area.
4. Complete the steps outlined in "Setting up Storage Spaces" on page 44 or "Setting Up RAID Storage" on page 45 to integrates the new drive into the RAID array.

Using USB Storage

The WD Sentinel server has two USB 2.0 port and four USB 3.0 ports on the back panel of the unit. The USB 3.0 ports can connect to external USB 2.0 or USB 3.0 storage devices or to a UPS device for power outage conditions. For example, WD My Passport or WD My Passport Essentials may be used to connect to the WD Sentinel server. You can share this data on your USB drive with other users connected to the server by using the Dashboard, which treats the USB drive as a share. You can set user privileges just as you do with shared folders on the WD Sentinel server's drives. The server manages UPS capability through a USB port for communication and to ensure an orderly shut down.

Back View
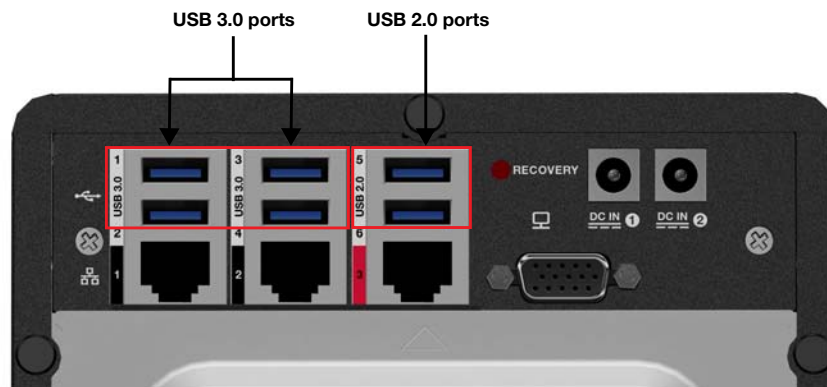
To share data on a USB drive:

1. Connect a USB drive to one of the six USB ports.
2. On the Dashboard, click the Storage icon.
3. Click the Server Folders tab.

4. In the Task bar, click Add a folder.
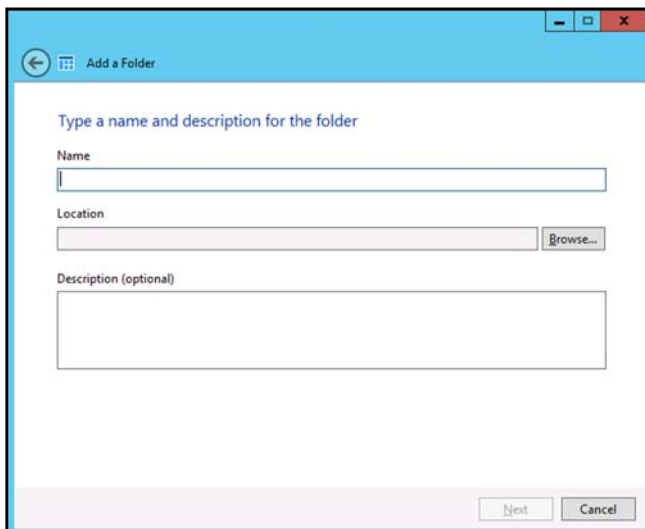
5. Enter a name for the folder.
6. Click **Browse** and select a folder on the USB drive. Note that a shared folder cannot be created at the root of the USB drive.
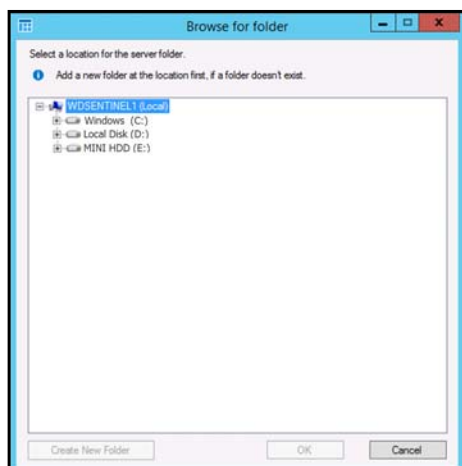
7. Click **OK** and follow the instructions on the screen.

To stop sharing data on a USB drive:

1. On the Dashboard, click the Servers Folders and Hard Drives icon.
2. Click the Server Folders tab, then select the folder you want to stop sharing.

3.   On the Task bar, click **Stop sharing the folder.**
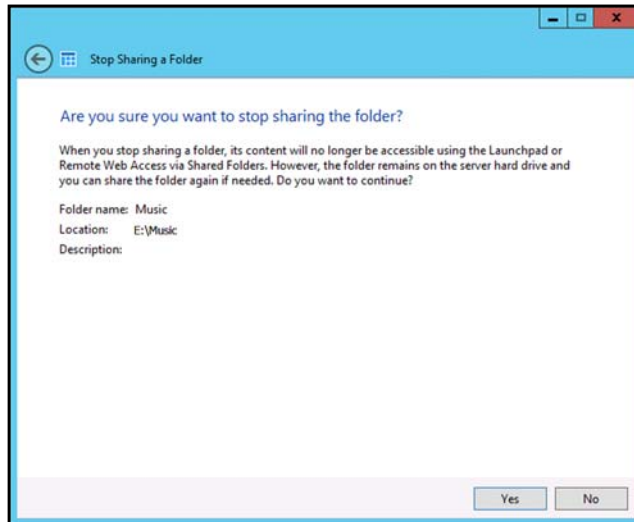
4.   Click **Yes**, then click **Close**.

Moving a Server Folder

It is a best practice to move any folders you may have on your server boot drive (C:) to your shared data drives. Use the following steps to move a folder on your server to another location on your server. When you perform this task, ensure that the new location has a maximum amount of free space.

> *Note:*   If possible, avoid moving a shared folder to your server's system drive (such as C:\ ) This may take away the necessary drive space required for your operating system and its updates.

> *Note:*   Avoid moving share folders to an external hard drive. Once moved, you may not be able to access these files in a folder on an external drive because they can be easily disconnected. Instead creating the folder on an internal drive is recommended.

A server folder cannot be moved to the following locations and will result in an error if any one of these locations is selected for a move:

- a hard drive that is not formatted with the NTFS or ReFS file system.
- the %windir% folder.
- a mapped network drive.
- a folder that contains a shared folder.
- a hard drive that is located under Device with Removable Storage.
- a sub-folder of a shared folder.

Before you move a folder ensure that:

- You've backed up your device (See "Backing up your WD Sentinel Server" on page 70.).
- None of the files within the folder you'd like to move are currently in use.

Use the following steps to move a server folder.

1.   On the Dashboard, click **Storage**.

2.   On the Server Folders tab, select the folder that you want to move.

3.   In the Tasks pane, click **Move the folder**.

4. Follow the steps outlined in the Move a folder wizard.
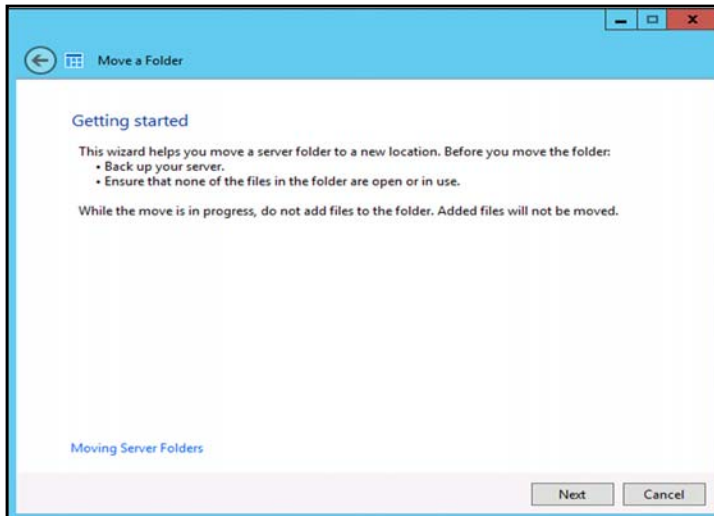
6 Using the WD Sentinel Server's Features

This chapter describes the routine tasks that both the Administrator and permitted users perform on the WD Sentinel server.
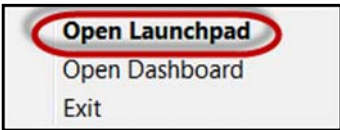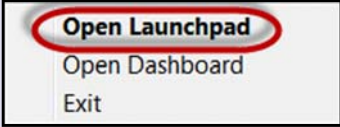
Using the Launchpad (Internal Users)

After you, the Administrator, use the Dashboard to set up users with a user name, password, and permissions, they can access the Launchpad Sign-in page using one of the following methods:

Best Practice: Ideally, you set up a user name and password for yourself and have given it all access privileges so you too can use the Launchpad shortcuts.

Accessing the Launchpad

To access the Launchpad (Windows):

If your operating systems is...	Do one of the following...
Windows 8	**From Apps Page**: • On your keyboard, click the Windows button ⊞ . • On the Start page, right-click in a blank area of the screen. • Select **All apps** . • Under Windows Server Essentials, click **Windows Server Launchpad**. **From Desktop:** • Double-click the Launchpad icon . **From System Tray**: • Right-click the Launchpad icon and select **Open Launchpad**. **Open Launchpad** Open Dashboard Exit

If your operating systems is...	Do one of the following...
Windows 7	**From Start Menu**: • Click 🟦>**All Programs >Windows Server 2012 Essentials>Windows Server Launchpad.** **From Desktop:** • Double-click the Launchpad icon 🟩. **From System Tray**: • Right-click the Launchpad icon 🟩 and select **Open Launchpad**. ⬤ **Open Launchpad** Open Dashboard Exit

Once you've accessed the Launchpad Sign In screen, use the following step to sign in and use the Launchpad.

1. Enter your user name and password.

2. Click the arrow to display the Launchpad.

The Launchpad lists four tasks that authorized users can perform: **Backup, Remote Web Access**, **Shared Folders** and **Dashboard**.

> *Note:* The **Dashboard** option is only useful to a user with Administrative privileges and knowledge of the Administrator password.

To access the Launchpad (Mac):

1. Do one of the following:
   - Double-click the Launchpad icon on your Mac Toolbar.
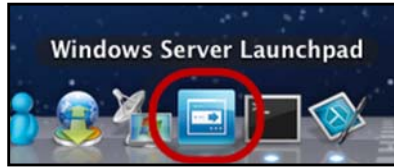
   - Select **Finder>Applications>Windows Server Launchpad**
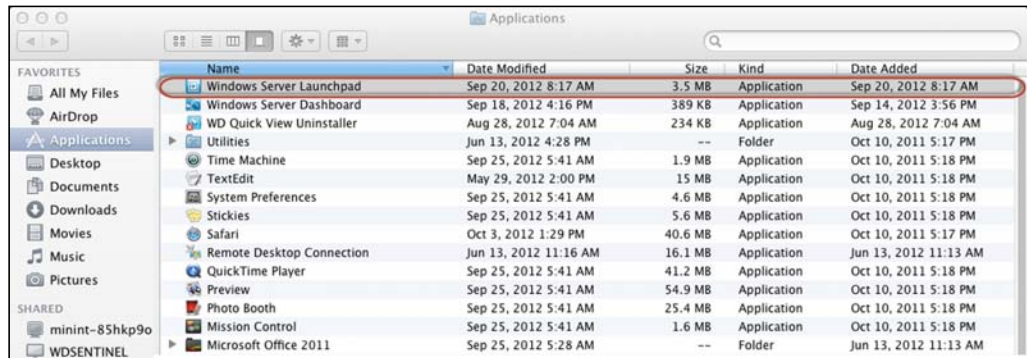
Once you've accessed the LaunchPad Sign In screen, use the following steps to sign in and use the Launchpad.

1. Enter your user name and password.

2. Click the arrow to display the Launchpad. It lists four tasks: **Backup**, **Remote Web Access**, and **Shared Folders**.

Selecting Launchpad Options (Windows PC or Mac Computer)

To select Launchpad options:

IF you want to...	THEN...	AND...
Back up your Windows PC to the WD Sentinel server manually	Click **Backup**.	Continue to "Backing up (Windows PC)" on page 60.
Back up your Mac to the WD Sentinel Server using Time Machine	Click **Backup**.	Continue to "Backing up with Time Machine (Mac)" on page 64.
Use Remote Web Access: • Enable remote web access for users with Remote Access Privileges • Access the server from a remote location (all users) • Change a user password (by the user)	Click **Remote Web Access**.	Continue to "Accessing Computers and Shared Folders Remotely" on page 59.
Access shared folders on the server	Click **Shared Folders**.	Continue to "Accessing Shared Folders Over Your Network" on page 58.
Manage the server (Windows PCs and Administrators only)	Click **Dashboard**.	Enter the Administrator password and continue to "Managing the WD Sentinel Server (Dashboard)" on page 25.

Managing the Launchpad

To disable the Launchpad after signing in (Windows):

1. Sign in to the Launchpad.
2. Click the menu **arrow** at the top right and select **Settings** from the drop-down menu.
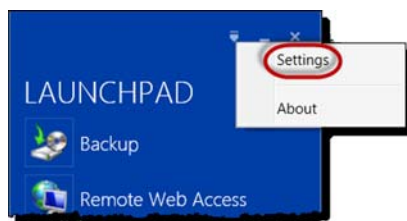
3. Clear the **Automatically run the Connector when I sign in to Windows** check box, and click **OK**.
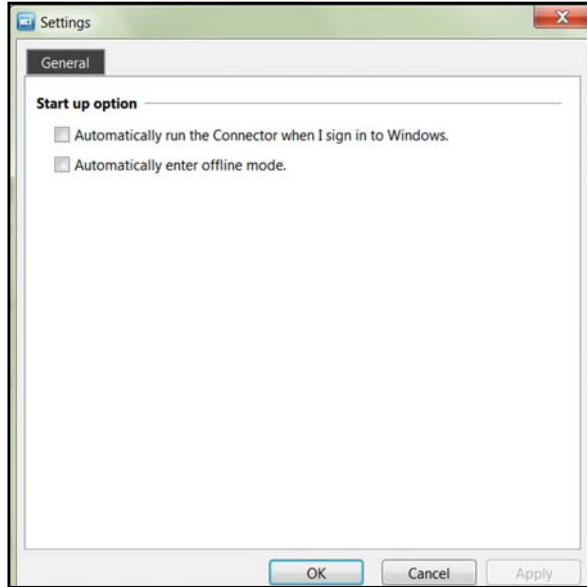
To disable the Launchpad after signing in (Mac):

1. Sign in to the Launchpad.
2. Click the menu **arrow** at the top right and select **Settings** from the drop-down menu.

3. Clear the **Automatically run Windows Server Launchpad when I log in** check box, and click the Close button ⬤.
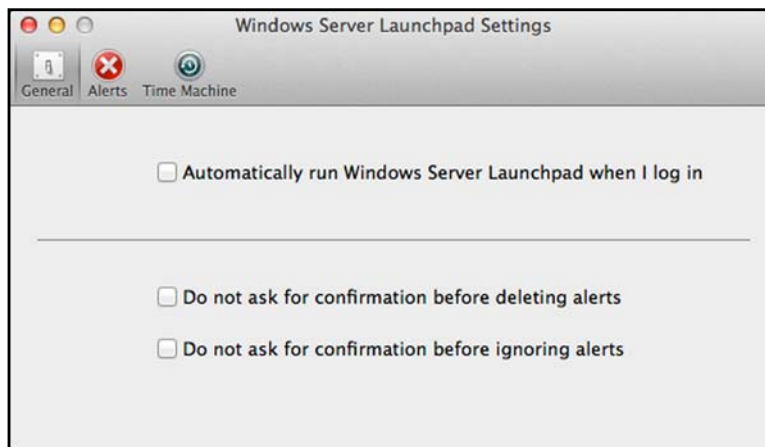
You can also change the type of alerts that display on the Launchpad selecting whether to allow Microsoft to send you information about it in this window, and setup your Time Machine backups.

To uninstall the Launchpad (Connector Software) on a Windows PC:

> *Note:* When you uninstall Launchpad, you also uninstall Dashboard. They can not be uninstalled separately.

If your operating systems is...	Then...
Windows 8	• On your keyboard, click the Windows button ▦ . • On the Start page, right-click in a blank area of the screen. • Select **All apps** ⊞ . • Under Windows Server 2012 Essentials, right-click **Windows Server Launchpad**. • Select Uninstall ⊡ .

Windows 7	• Click ⊙>**Control Panel** (Windows 7/Vista).
	 • Click **Start>Control Panel** (Windows XP).
	 • Click **Uninstall a Program**.
	 • From the list, select **Windows Server 2012 Essentials Connector**.
	 • Click **Uninstall**.
	
	   − If the User Account Control window displays, click **Allow**.
	
	   − If the Windows Server 2012 Essentials Connector page displays suggesting that you close the Launchpad, click **OK**.
	 Note: You must reboot the computer before installing another Connector.

To uninstall the Launchpad (Connector Software) on a Mac:

You must uninstall Launchpad from three Macintosh**®** HD folders: Users, Applications, and Library.

1. Quit the Launchpad.

2. In the Finder pane, click **Applications**. Drag and drop **Windows Server Launchpad** into the **Trash** icon. The Launchpad icon no longer appears in the dock.

3. Click **Finder>Devices>Macintosh HD**.

4. Click **Library>Application Support>Microsoft**. Drag and drop **Launchpad** into the **Trash** icon.

5. Click **Library>Preferences**. Drag and drop "**com.microsoft.launchpad.plist**" into the **Trash** icon.

6. Right-click the Trash icon and select **Empty Trash**.

Accessing Shared Folders Over Your Network

Launchpad (Windows)

1. On the Launchpad, click **Shared Folders**. A set of folders similar to the one below displays:
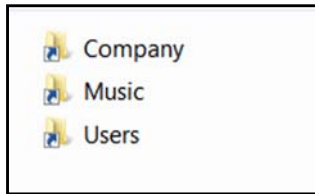
2. Double-click a folder to open it, then click the file you want to access. Your access (as a general user) depends on the permissions assigned to you by the Administrator.

Launchpad (Mac)

1. On the Launchpad, click **Shared Folders**.
2. Select the shared folder you'd like to mount on your Mac, then click **OK**.
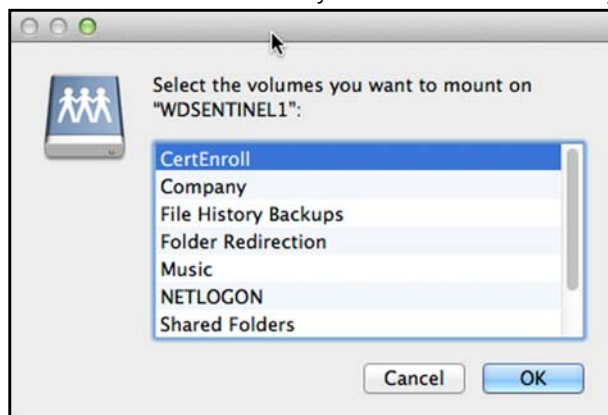
- If all shared folders are mounted on your Mac, click **Cancel**, then open Finder. Click the IP Address of your WD Sentinel under Shared to display your Shared Folders.

3. The selected shared folder displays in Finder.
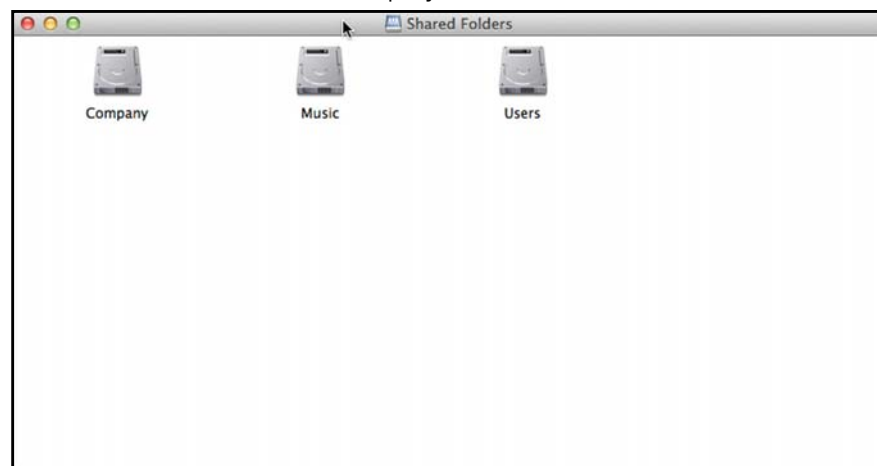
Accessing Computers and Shared Folders Remotely

This section assumes that the Administrator has completed the setup and configuration for Remote Web Access through the Dashboard.

You can access files stored on the WD Sentinel DS5100/DS6100 anywhere, as long as you have access to the Internet.

> *Note:* You must use Internet Explorer 8 or higher to access a PC using the Remote Web Access feature. See "Specific Problems and Corrective Actions" on page 73.

Logging In

1. On the Launchpad, click **Remote Web Access** or on a web browser, enter the domain address for your WD Sentinel server. This is the domain address the Administrator configured while setting up Remote Web Access on your WD Sentinel server. The following web page displays in your browser.
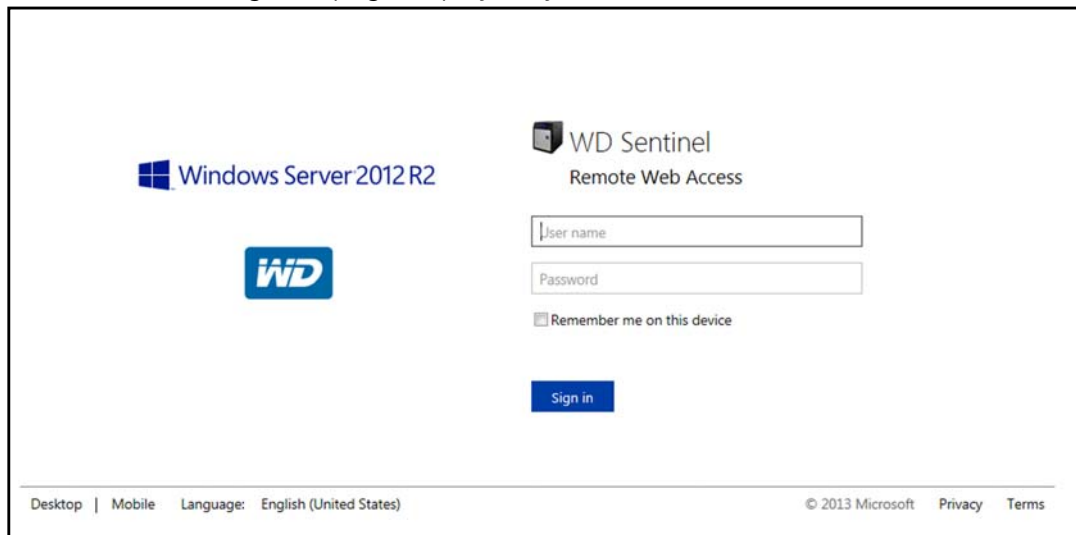
2. Enter the WD Sentinel server user name and password set up with the appropriate permissions, then click the **Sign in** to display the Remote Web Access: Home window:
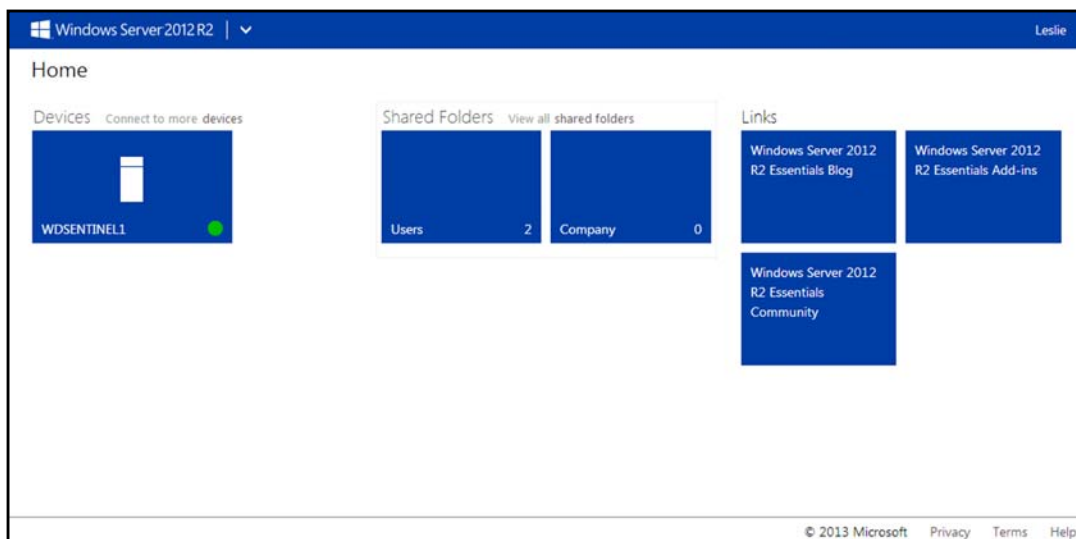
Remote Web Access Home Page

The Remote window includes the following sections:

> *Note:* You can also use the navigation links at the top of the window to view these sections.

Devices

> *Note:* Connecting to computers or the WD Sentinel server using Remote Web Access requires the Internet Explorer browser.

- Click **Connect** to connect to your WD Sentinel server or to a computer on your network.
    - If the Internet Explorer you are using does not have Active X Client, click **OK** to install it, then complete the wizard.

Shared Folders

Access shared folders on the WD Sentinel server. A user with "Read & Write" access to a particular shared folder is able to modify the contents of the existing files, upload new files, or delete files from the folder.

> *Note:* Only the folders for which the user has permissions are displayed under Shared Folders on Remote Web Access.

Links

Displays useful links to Microsoft information.

Backing up (Windows PC)

The WD Sentinel server backup is based upon block level de-duplication, a process that backs up data without unnecessarily backing up the same data more than once. This powerful process uses less network traffic for execution, provides a full back-up at each backup time (although it behaves as if it is incremental), and by executing de-duplication across all client computers, the storage capacity requirements are significantly reduced. Backup becomes an automatic process for a computer once you install Connector software on it. With Connector software installed, all volumes and all NTFS data on that computer are backed up.

> *Note:* For information on backing up your Mac using Time Machine, See "Backing up with Time Machine (Mac)" on page 64.
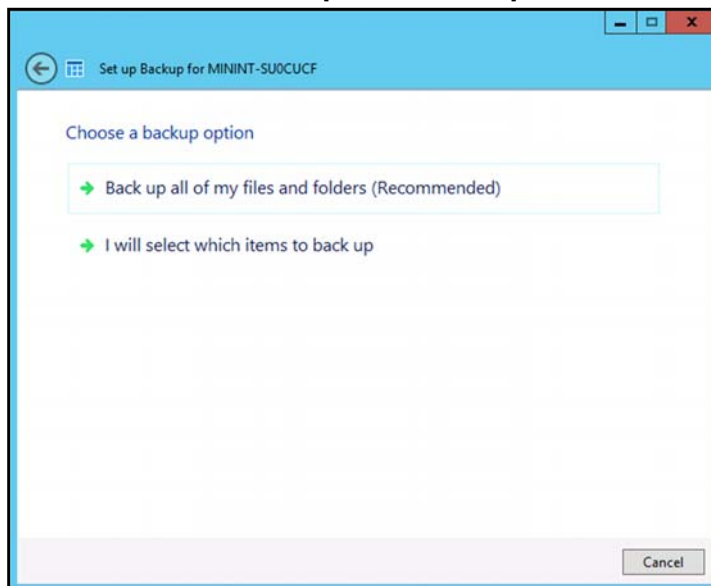
Scheduling Automatic Backups (Dashboard only)
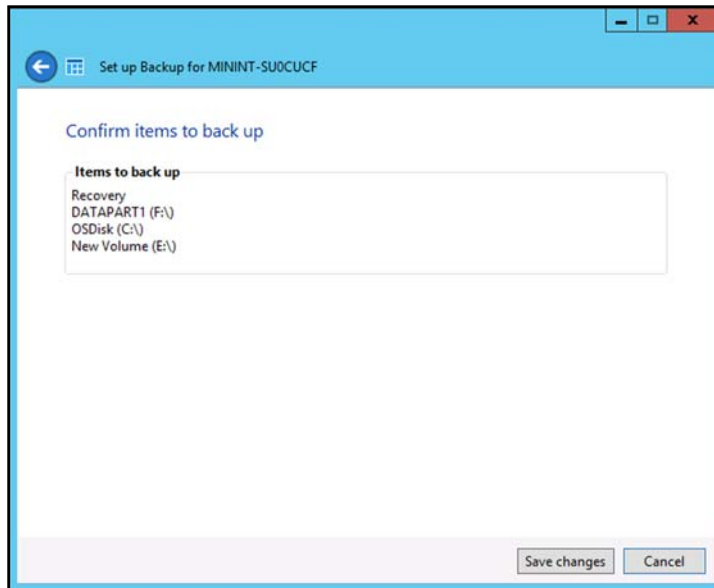
To set a schedule for future backups:

1. Access the Dashboard.

2. Click the **Devices** icon on the navigation bar to display a list of computers and servers on your network:
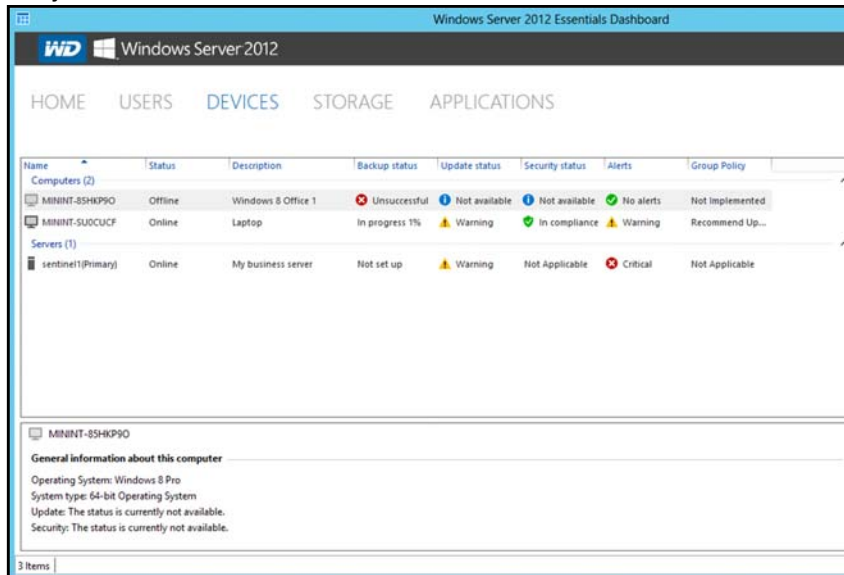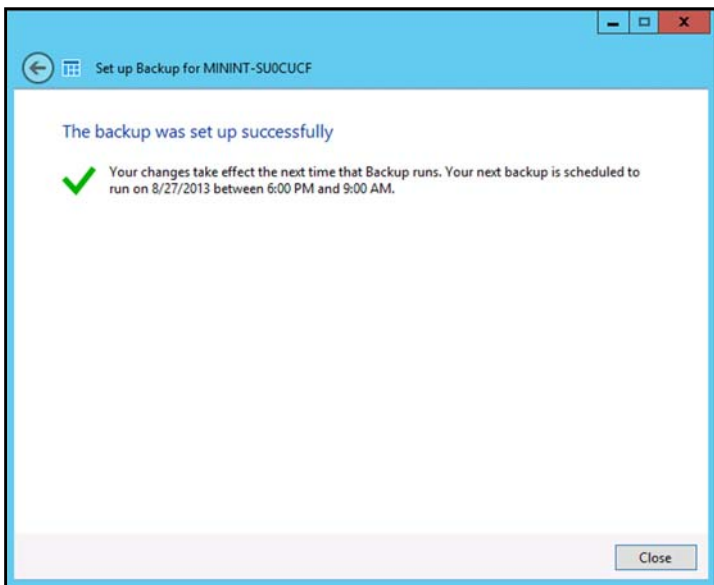

3. Click **Customize Backup for the computer** in the Device Tasks panel.

4. Select **Back up all of my files and folders (Recommended)**.

5. Review the backup information to ensure that it is correct, then click **Save changes**. The selected computer is now setup for automatic backup.

6. Click **Close**.

Initiating Backups

By default, backups are performed at night for up to 50 client computers in a sequential order. If the client computer is asleep or hibernating at that time, the backup software can be enabled to wake up the client computer, back it up, and put it back to sleep.

You may start a manual backup either through the **Launchpad** on the computer being backed up or through the Dashboard.

Backup Using the Launchpad

> *Note:* For information on accessing the Launchpad, see "Using the Launchpad (Internal Users)" on page 52.

1. On the Launchpad, click **Backup**. The Backup Properties page displays:
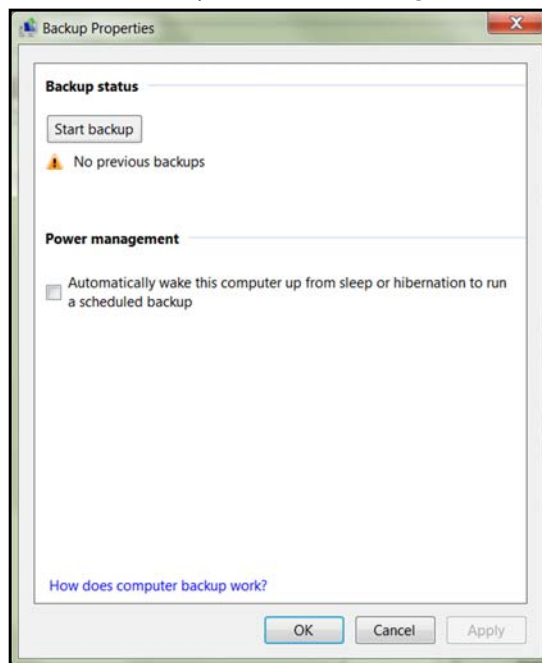
> *Note:* If you want the computer to automatically wake up for scheduled backups, select the check box.

2. Click **Start backup**.
3. Enter a name for the backup and click **OK**.
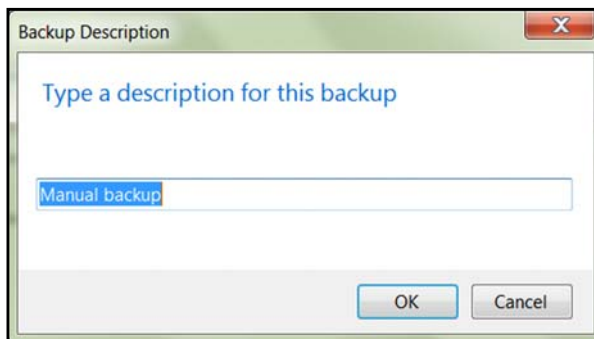
The Backup Properties page re-displays and tracks the progress of the backup.

4. Click **OK** to apply the change, close the page, and return to the Launchpad while the backup continues.

   The message that the backup was successful displays on the page and on the Dashboard. For more information about the backup process, see *Microsoft Online Help*.

Backup Using the Dashboard

1. Click **Devices** on the navigation bar to display a list of computers and servers on your network:
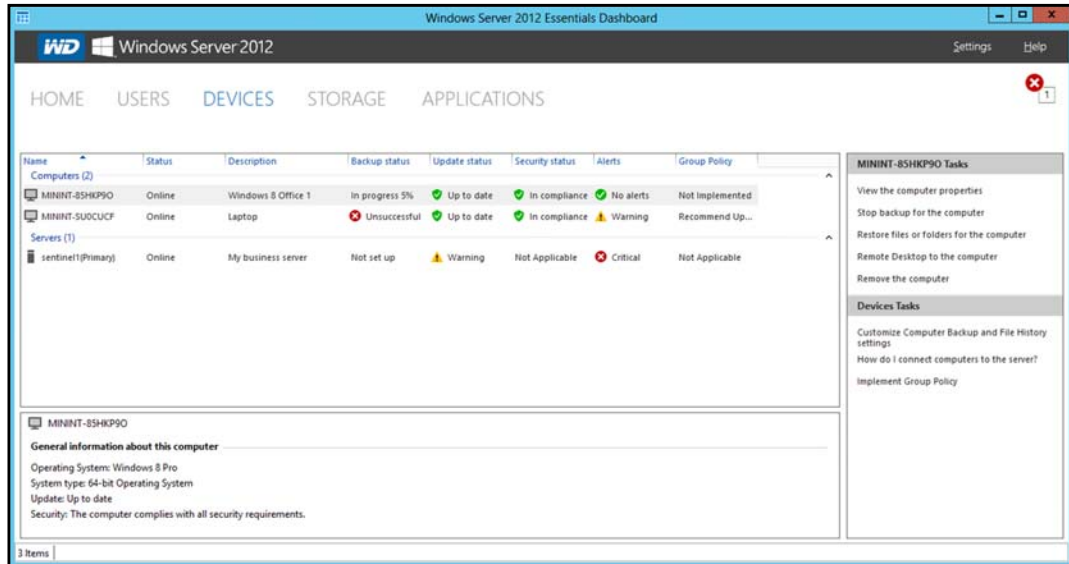
2. Select the computer you want to back up.

3. Click **Start a Backup for the computer** in the Task pane. For further instructions, see *Microsoft Online Help*.

Backing up with Time Machine (Mac)

For Mac users, Time Machine® allows you to backup data to your WD Sentinel server. Time Machine automatically backs up your entire Mac, including system files, applications, accounts, preferences, email messages, music, photos, movies, and documents.

> *Note:* Time Machine keeps hourly backups for the past 24 hours, daily backups for the past month, and weekly backups until your backup drive is full.

To take advantage of the Time Machine backup capabilities, you must install the server connector software on your Mac (see "Connecting a Mac" on page 23) and create a user account within the WD Sentinel server (see "Adding a User Account" on page 27).

> *Note:* Your Mac must be connect to the same network as your WD Sentinel server.

For additional information on Time Machine, consult your Mac OS documentation.

> *Note:* For information on backing up your PC, See "Backing up (Windows PC)" on page 60.

Scheduling Automatic Backups (Time Machine)

To set up and schedule Time Machine to back up files to your WD Sentinel server:

1. Use one of the following methods to open Time Machine.
    -   Click the Time Machine icon in the Dock:
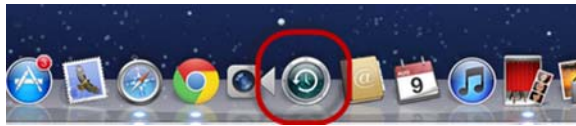
    -   Click the **Apple® menu** > **System Preferences** and select **Time Machine.**
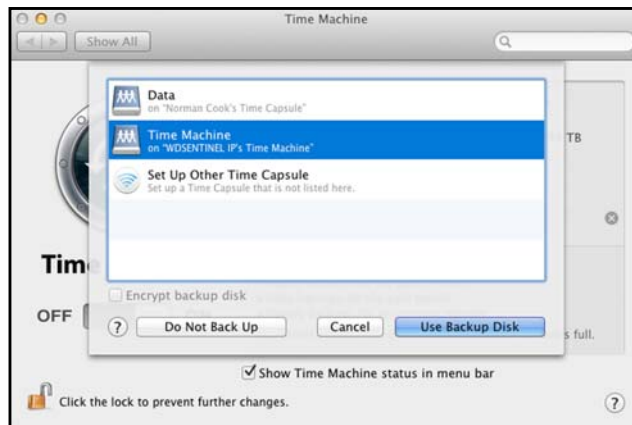   -   Click **Go > Applications** and select **Time Machine**.

2. If this is your first time creating a backup, the following screen displays:

3. Click **Set Up Time Machine** to display the Time Machine Preferences screen:

4. Click **Select Backup Disk** and select the WD Sentinel server for your backups.

5. Click **Use Backup Disk**. A screen prompts for your user name and password.

6. Enter the user name and password of an account that has administrator permissions on this client computer, then click **OK**.
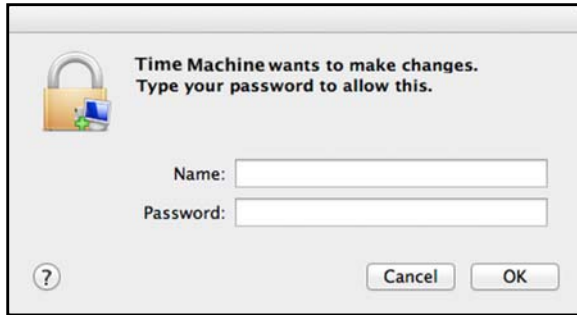
7. Select **Registered User**.

8. Enter your assigned WD Sentinel User Name and Password in the Name and Password fields:

9. Click **Connect**. The Preferences screen returns.

10. To start automatic backups, move the slider to **ON**.

Time Machine begins backing up your files. The first backup may take some time, but subsequent backups are faster because Time Machine only backs up new or changed items.

Time Machine backs up your computer every hour and keeps the following backup sets:

- Every hour for 24 hours
- Every day for the past month
- Weekly until the WD Sentinel drive is full.

 Note: If a backup is interrupted, for example, if the computer goes into sleep mode, it will resume automatically once the computer is available.

To see information such as available capacity and the date and time of the oldest, latest, and next backup, select **Open Time Machine Preferences** on the Time Machine drop-down menu:

Recovering/Restoring (Windows PC)

The WD Sentinel server provides two options for recovering lost or corrupted data:

- **Restore a Computer**—Restores all data and settings of a Windows PC computer or a storage device connected to the WD Sentinel server.

- **Recover File/Folders** —Recovers individual files or folders.

   Note: For information on recovering/restoring data on your Mac using Time Machine, See "Recovering/Restoring (Mac)" on page 69.

Restoring Windows PC Computers

Use the following steps to restore files, versions of files, or your entire system for your Windows PC.

1. Click **Devices** on the navigation bar.

2. Select the computer that was backed up.

3. In the panel on the right, click **Restore files or folders for the computer.**
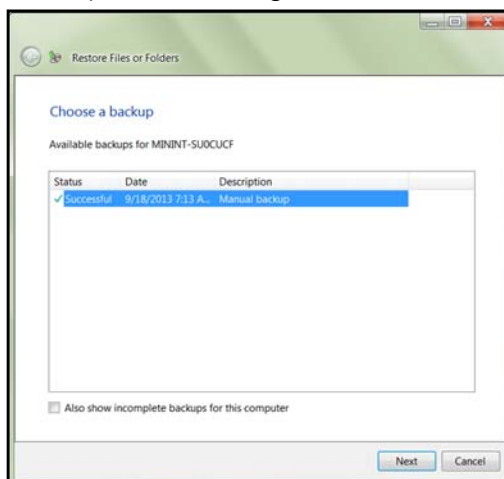
4. Click **Next.**

5. Select the information you'd like to restore from the list provided, then click **Next**.
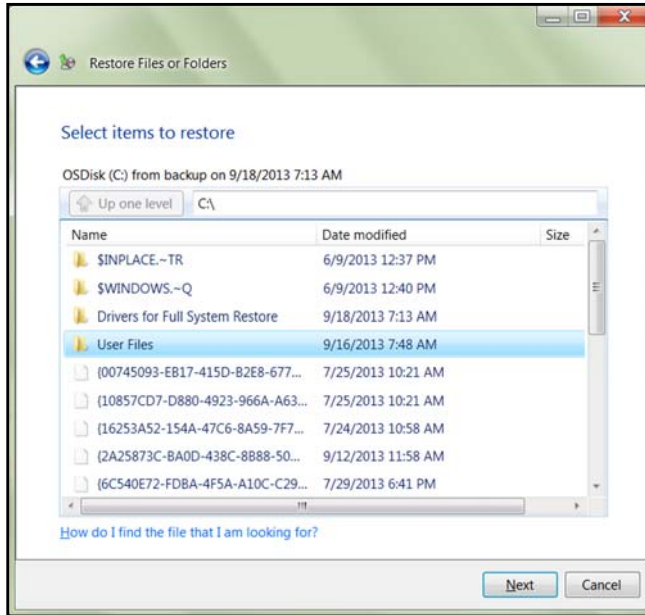
6. Select a location for your restored backup. You can accept the location provided in the field, or click **Browse** and select another location. Once you've selected a different location, click **OK** to close the Browse window.
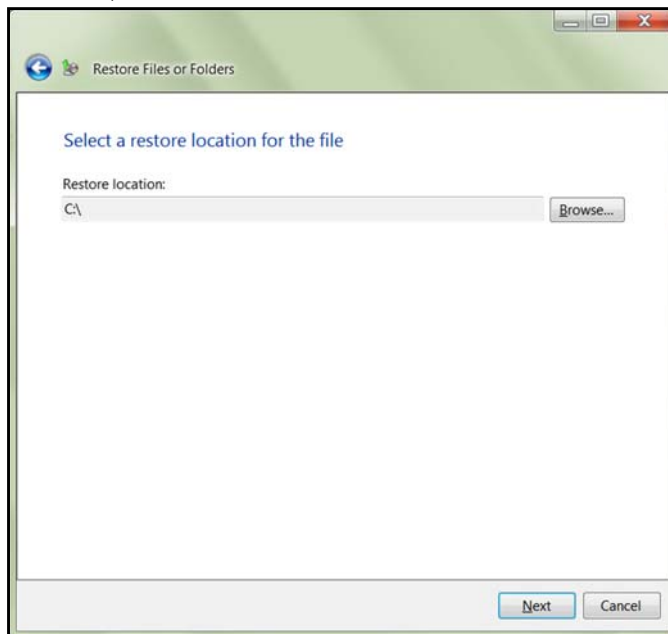
7. Click **Next**. The restored backup is copied to the selected location. Once done, the successfully restored screen appears.
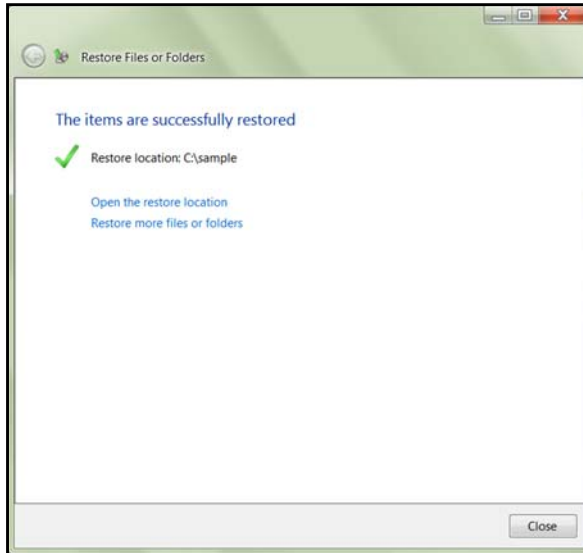
8. Do one of the following:.
    - Click **Open the Restore location** to view your restored information.
    - Click **Restore more files or folders** to restore more information.
    - Click **Close** to close the Restore Files or Folders screen.

Recovering/Restoring (Mac)

Time Machine allows you to restore files, versions of files, or your entire system. For additional information on recovering or restoring your system files, consult your Apple documentation.

> *Note:* For information on recovering/restoring data on your PC, See "Recovering/Restoring (Windows PC)" on page 67.

1. On the Launchpad, click **Backup**. Your Time Machine backups display.
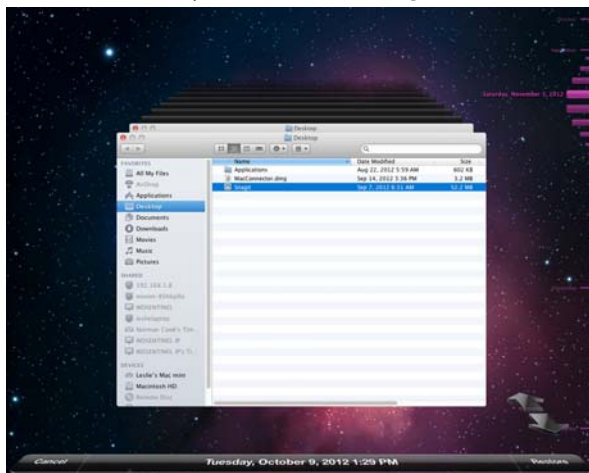
2. Select the date you'd like to restore to from the time line on the right of the screen.
3. Click **Restore** in the bottom right-hand side of your screen.

Backing up your WD Sentinel Server

Backing up your WD Sentinel server allows you to protect your operating system, system state, volumes, files, and application data. For information on how to back up your WD Sentinel server, see *Microsoft Online Help/Manage Backup and Restore/Manage Server Backup*.

## Recovering a WD Sentinel Server Image or Resetting the Boot Drives to Factory Defaults

This feature recovers your WD Sentinel server image from a previously created Windows server backup. If a Windows server backup can not be retrieved, this process will restore the unit to its factory default settings.

Use the following steps to recover your WD Sentinel Server image or reset the boot drives to factory defaults.

1. From your WD Sentinel server desktop, move your mouse to the right corner of the screen.
2. On the Charms bar, select **Settings** .
3. Click **Power**.

4. Hold down the Shift key on your keyboard, then click **Restart**.
5. Click **Continue**.
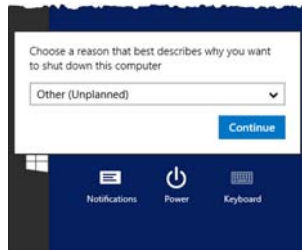
6. Select **Troubleshoot** from the options displayed.
7. Select one of the following options, depending on the type of recovery you'd like to perform:
   - **WD Factory Restore**: This options will re-image the operating system/boot drives to their factory default levels.

WARNING!   **All prior information/data on the boot drives will be lost. Data drives are not affected by this action.**

   - **Advanced Options**: This option provides you with additional troubleshooting options.
     - Select **System Image Recovery** to recover your data from a previous backup. Once this option is selected, you will be prompted for your Administrator password.
     - Follow the instructions displayed on your screen to complete the process.
8. Once the process is complete, your WD Sentinel server reboots. Log into the device using your Administrator password.

7 Best Practices

The following practices help you use the WD Sentinel server and protect your data efficiently and safely.

Setting up the WD Sentinel Server

- Change the default name of WD Sentinel to something unique. This avoids conflicts when another WD Sentinel server is added to your network in the future.
- Make sure Ethernet 1 and Ethernet 2 are on the same network subnet.
- Add the server to your domain. This allows users to use the same login and password for both the Launchpad and their computer.
- If you decide to lock the drives, make sure the password is stored in a safe place.
- Set user password policy to at least medium security.
- Enable Microsoft Automatic Updates to find and apply the latest Microsoft software update.
- Enable WD Automatic Updates to find and apply the latest WD software update.
- Set up Automatic Alert Notification for real-time notifications of any problems with the WD Sentinel server.
- Set up Remote Web Access using Ports 443 and Port 80. If your router or IP provider blocks these ports, you may need to consult with your IP provider for assistance.
- **Do not remove the Windows page file!** Some critical functions use the system's paging file. Removing the page file can potentially leave your system unusable with the possibility of data loss. To maintain the reliability of your system and its redundant resources, do not modify the paging file whatsoever.

Setting up Client Computers

- Before loading the Connector software to add a computer to the WD Sentinel server for backup, be sure that the computer's operating system is fully up-to-date.
- When adding client computers to the WD Sentinel server, it is best not to have any backups active.

Using the WD Sentinel Server Efficiently

- The WD Sentinel server has many jobs to perform. Share data during business hours, and back up the computers during hours of inactivity. Keep the server powered on 24/7 to do its work.
- To avoid RAID issues, always use Sentinel with a UPS.
- Enable e-mail alerts. Receiving your alerts by email allows you to monitor certain server issues as they occur.

Replacing Drives

- The online removal of a drive forces a rebuild when the drive is replaced. Until the rebuild is complete, the RAID system is degraded and unrecoverable failure will occur should another drive be removed. Only remove one drive at a time between rebuilds.
- Avoid pulling a drive out unless there is a failure.
- When a drive needs replacement, the WD Sentinel server is still functional but subject to a second drive failure that would result in the loss of data. To minimize this vulnerable time, a good practice is to have another drive ready to replace the failed drive.

Sharing Files with External Users

- Create Employee-Specific Private Folders/Assign Permissions—Depending on the nature of your business and organizational structure, you may want to create a shared folder for each employee and give the respective employee Read/Write permissions for that folder.
- Create Shares for Vendors or Clients/Access Remotely—The built-in Remote Web Access feature enables collaboration on files and data not only among your employees but also with your clients and vendors.

   As a best practice, create a unique user account for each client and vendor you want to exchange data with and create a dedicated Shared Folder for each such external user. To prevent giving external users access to your sensitive data, make sure that the user accounts you create have the appropriate permissions for only the folders you have created for them.

   To start collaborating with your external users, just provide them with the domain address of your WD Sentinel server and their user name and password.

Shutting Down

- Unclean shutdowns are hard on RAIDed systems. The WD Sentinel server recognizes an unclean shut down and upon the reapplication of power, begins a long sequence of examining the RAID for errors and bringing the RAID configuration back into alignment. This sequence can take many hours. To avoid this situation and to assure that the unit always experiences clean shutdowns and the best data integrity, use an Uninterruptible Power Supply (UPS).

   Note: Performance is affected during a RAID rebuild and verification.

- To avoid possible corruption, do not unplug the power from the unit while it is running.

8

Troubleshooting

For any issue, first ensure that you are using the latest firmware for the
WD Sentinel server. See "Updating Software" on page 37 for instructions.

First Steps Checklist

- Is the power supply plugged in to the wall outlet and the drive?
- Are all cables correctly connected and secured?
- Is the power on? If not, see "LEDs" on page 12.

Specific Problems and Corrective Actions

The following section contains specific problems that may arise during the use of the
WD Sentinel server and provides possible solutions.

LEDs do not light up

1. Make sure the power cord is connected correctly.
2. Make sure that the wall outlet has power. Test it by plugging in another device.
3. Confirm the network cable is properly connected to the WD Sentinel server and the network switch or router.
4. Make sure the network switch or router has power.
5. Use a different network cable and port on the network switch or router. Temporarily swapping the WD Sentinel's cable port with a working network device may identify any failing cables and ports.

Connecting to Shared Folders on a WD Sentinel server from a Windows PC on which Launchpad is not installed

Windows 8:

1. On your keyboard, click the Windows logo key ▦ **+ E**
2. On the Computer screen toolbar, select **Map Network Drive**, then select **Map Network Drive**.
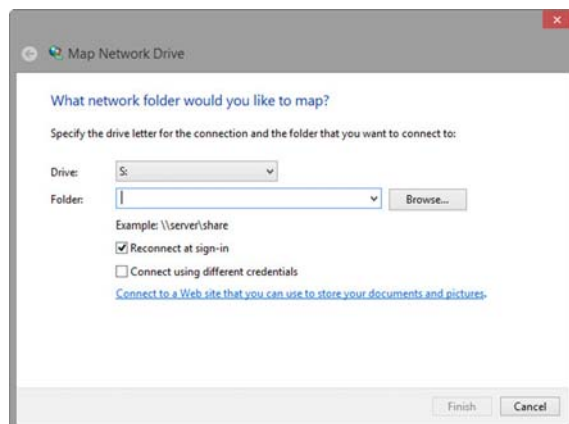
3. From the **Drive** drop-down list, choose the letter that you want the WD Sentinel server to have in **Computer.**

4. Click **Browse** to find the folder that you want to map, or type the path to the server using the format \\ServerName\FolderName. For example, if the share is called Documents, and your server is called MyServer, you would enter \\MyServer\Documents.

5. If you want the drive to reconnect whenever the computer is rebooted, click the **Reconnect at logon** check box.

6. Click **Finish**.

Windows 7:

1. Right-click **Computer** and select **Map Network Drive**.
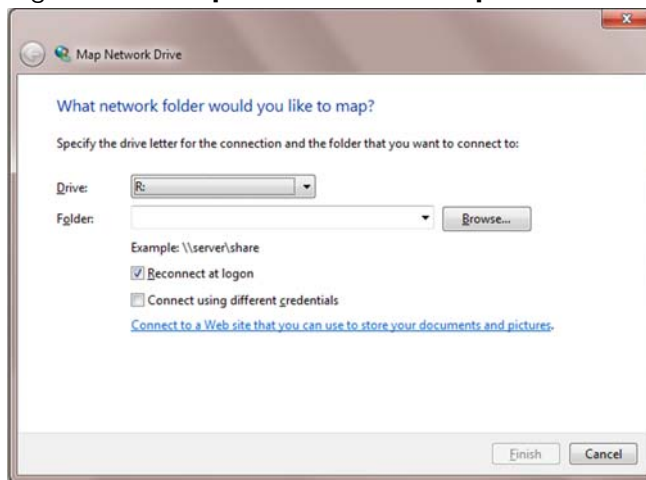
2. From the **Drive** drop-down list, choose the letter that you want the WD Sentinel server to have in **Computer.**

3. Click **Browse** to find the folder that you want to map, or type the path to the server using the format \\ServerName\FolderName. For example, if the share is called Documents, and your server is called MyServer, you would enter \\MyServer\Documents.

4. If you want the drive to reconnect whenever the computer is rebooted, click the **Reconnect at logon** check box.

5. Click **Finish**.

Cannot access Windows PCs via Remote Access

Internet Explorer 8 or greater is required to access a Windows PC using the Remote Web Access feature of the WD Sentinel server. There is an Active X Client requirement that comes standard with these browsers. For more information, see *Knowledge Base Answer ID 8578*.

LCD Messages

The LCD displays various messages for you to review. Provided below is a list of messages, a description of the message and possible responses for that message.

LCD	Description	Troubleshooting
<Host Name>	Displays the name of your WD Sentinel server.	
<IP Address>	Displays the IP address of your WD Sentinel server.	If the IP address does not display, ensure that your device is connected by ethernet cable to your router.
Backup Failed	The software backup has failed.	This error occurs when the backup you are running is unsuccessful. **Rerun the backup to clear this problem.**
BIOS Corrupted	Your BIOS is corrupted	Contact *Technical Support* for assistance.
BIOS Degraded	Your BIOS is degraded	The system is unable to boot from the primary BIOS and is currently running on the secondary BIOS.
BIOS Repaired Reboot Required	Your system is currently running on the secondary BIOS. A reboot is required to attempt a repair of your BIOS.	Your system is running on the secondary BIOS. An attempt will be made during the reboot to run the system on the primary BIOS.
BIOS Updated Reboot Required	The primary BIOS has been updated, A system reboot is required.	**Reboot the system. This allows the updated BIOS to take affect.**
BIOS Updating	The BIOS is updating.	Your system BIOS is currently updating. Do not disconnect the power or interrupt the process until the update is complete.
BMC Updating	The BMC is updating.	The BMC is currently updating. Do not disconnect the power or interrupt the process until the update is complete.
Boot Drive <Drive Name> Failed	The operating system (OS) boot drive has failed to boot into Windows.	Replace the identified boot drive. • Access the Dashboard (See "Accessing the Dashboard" on page 25.) • Click **Monitor** on the navigation bar. • Check **Internal Storage>Boot Drive** area to review the status of your drive. • Obtain and install a comparable boot drive.

LCD	Description	Troubleshooting
Boot Drive <Drive Name> Over Temp	The operating system (OS) boot drive has exceeded the normal operating temperature.	Check the airflow around your device and the system fan operation.
Boot Volume Degraded	One of the operating system (OS) drives has failed. The system will operate but in a degraded state.	Replace the identified boot drive. • Access the Dashboard (See "Accessing the Dashboard" on page 25.) • Click **Monitor** on the navigation bar. • Check **Internal Storage>Boot Drive** area to review the status of your drive. • Obtain and install a comparable boot drive.
Capacity Low	Available disk space is low.	Storage capacity on your device is low. You will need to add additional drives to expand the device storage.
Drive Count	Displays the number of drives currently on your device.	The total drive count in the system. This includes the boot drive(s) and the data drives.
Drive Failed	One of the data drives failed.	Your data drives are currently running in RAID protection mode. Replace the failed drive. • Access the Dashboard (See "Accessing the Dashboard" on page 25.) • Click **Monitor** on the navigation bar. • Check **Internal Storage>Data Drive** area to review the status of your drive. • Obtain and install a comparable data drive.
Drive Over Temp	The data drive has exceeded the normal operating temperature.	Check the airflow around your device and the system fan operation.
Ethernet <port #> Disconnected	Ethernet port 1 or port 2 is disconnected.	Reconnect the ethernet cable to the identified port.
Fan Failed	The system's primary fan (DS5100/DS6100) or the CPU fan (DS6100) has failed.	The primary or CPU fan has failed. Replace the applicable failed fan.
Imminent Drive Failure	S.M.A.R.T early detection found a premature drive failure condition on one of the data drives.	Replace the defective drive as soon as possible to stop RAID from going into a degraded state.

LCD	Description	Troubleshooting
Imminent Failure Boot Drive <Drive Name>	S.M.A.R.T early detection found a premature drive failure condition on one of the boot drives.	Replace the defective drive as soon as possible to stop RAID from going into a degraded state.
Invalid Drive	The inserted drive is not compatible with the device.	Replace the inserted drive with an approved drive. See **Dashboard>Monitor> Tasks** for a list of approved drives.
Invalid Drive Capacity	The new drive capacity is either greater or smaller than the drive you replaced.	Replace the inserted drive with a drive that has the correct drive capacity.
Network Disconnected	The ethernet port does not have network activity.	Restore network connectivity.
Power Supply <Supply #> Failed	Power supply 1 or 2 failed.	Replace the defective power supply. • Access the Dashboard (See "Accessing the Dashboard" on page 25.) • Click **Monitor** on the navigation bar. • Check the Power Adapter area to review the status of your power supply. • Obtain and install a comparable power supply.
Reboot Required	The system requires a reboot.	Safely reboot the system.
Software Update Complete	The software update process is complete.	Check the Alert Viewer to verify the completion of the software update.
Software Update Downloading	A software update is being downloaded to the system.	Allow the process to fully complete. No action is required.
Software Update Reboot Required	The software update is complete. The system requires a reboot.	The reboot is normally automatic. If it does not occur, perform a manual reboot.
WD Software Update Available	There is a WD software update available for download.	Access and perform the update. • Access the Dashboard (See "Accessing the Dashboard" on page 25.) • Click **Monitor** on the navigation bar. • Click the **Software Update** tab. • Click **Check for Updates**. • Click **Download** and **Install** to update the software.
WD Software Update Failed	The WD software update failed.	Repeat the Software update process again.

10 Regulatory and Warranty Information

Regulatory Compliance
Limited Warranty
GNU General Public License ("GPL")

Regulatory Compliance

FCC Class B Information

Operation of this device is subject to the following conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

This device has been tested and found to comply with the limits of a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This unit generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio or television reception. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, you are encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet or a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/television technician for help.

Any changes or modifications not expressly approved by WD could void the user's authority to operate this equipment.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

ICES/NMB-003 Compliance

Cet appareil de la classe B est conforme à la norme NMB-003 du Canada.

This device complies with Canadian ICES-003 Class B.

Safety Compliance

Approved for US and Canada. CAN/CSA-C22.2 No. 60950-1: Safety of Information Technology Equipment.

Approuvé pour les Etats-Unis et le Canada. CAN/CSA-C22.2 No. 60950-1: Sûreté d'équipement de technologie de l'information.

This product is intended to be supplied by a listed limited power source, double insulated, or direct plug-in power unit marked "Class 1."

CAUTION! Danger of explosion if the battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the equipment manufacturer. Dispose of used batteries according to manufacturer's instructions.

CE Compliance for Europe

Verified to comply with EN55022 for RF emission; EN-55024 for Generic Immunity, as applicable; and EN-60950-1 for Safety.

Environmental Compliance (China)

部件编号	铅（Pb）	水银（Hg）	镉（Cd）	六价铬（Cr(VI)）	多溴联苯（PBB）
PCBA	X	○	○	○	○
适配器	X	○	○	○	○
RJ45 电缆	○	○	○	○	○
螺丝	○	○	○	○	○
橡胶垫	○	○	○	○	○
金属	○	○	○	○	○
塑料	○	○	○	○	○

○：表示部件中不包含相应的物质，或者含量没有超出 SJ/T 11363-2006 法规中规定的同类物质的最大允许水平。
X：表示部件中相应物质的含量超出 SJ/T 11363-2006 法规中规定的限度

Obtaining Service

WD values your business and always attempts to provide you the very best of service. If this Product requires maintenance, either contact the dealer from whom you originally purchased the Product or visit our product support website at *http://support.wd.com* for information on how to obtain service or a Return Material Authorization (RMA). If it is determined that the Product may be defective, you will be given an RMA number and instructions for Product return. An unauthorized return (i.e., one for which an RMA number has not been issued) will be returned to you at your expense. Authorized returns must be shipped in an approved shipping container, prepaid and insured, to the address provided on your return paperwork. Your original box and packaging materials should be kept for storing or shipping your WD product. To conclusively establish the period of warranty, check the warranty expiration (serial number required) via *http://support.wd.com*. WD shall have no liability for lost data regardless of the cause, recovery of lost data, or data contained in any Product placed in its possession.

Limited Warranty

WD warrants that the Product, in the course of its normal use, will for the term defined below, be free from defects in material and workmanship and will conform to WD's specification therefor. The term of your limited warranty depends on the country in which your Product was purchased. The term of your limited warranty is for 1 years in the North, South and Central America region, 2 years in the Europe, the Middle East and Africa region, and 1 years in the Asia Pacific region, unless otherwise required by law. The term of your

limited warranty period shall commence on the purchase date appearing on your purchase receipt. WD may at its discretion make extended warranties available for purchase. WD shall have no liability for any Product returned if WD determines that the Product was stolen from WD or that the asserted defect a) is not present, b) cannot reasonably be rectified because of damage occurring before WD receives the Product, or c) is attributable to misuse, improper installation, alteration (including removing or obliterating labels and opening or removing external enclosures, including the mounting frame, unless the product is on the list of limited user-serviceable products and the specific alteration is within the scope of the applicable instructions, as found at *http://support.wd.com*), accident or mishandling while in the possession of someone other than WD. Subject to the limitations specified above, your sole and exclusive warranty shall be, during the period of warranty specified above and at WD's option, the repair or replacement of the Product with an equivalent or better Product. The foregoing warranty of WD shall extend to repaired or replaced Products for the balance of the applicable period of the original warranty or ninety (90) days from the date of shipment of a repaired or replaced Product, whichever is longer. The foregoing limited warranty is WD's sole warranty and is applicable only to products sold as new. The remedies provided herein are in lieu of a) any and all other remedies and warranties, whether expressed, implied or statutory, including but not limited to, any implied warranty of merchantability or fitness for a particular purpose, and b) any and all obligations and liabilities of WD for damages including, but not limited to accidental, consequential, or special damages, or any financial loss, lost profits or expenses, or lost data arising out of or in connection with the purchase, use, or performance of the Product, even if WD has been advised of the possibility of such damages. In the United States, some states do not allow exclusion or limitations of incidental or consequential damages, so the limitations above may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

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9 Appendix

Hardware Replacement Procedures

This chapter provides the steps necessary to replace the following components designed for replacement for the WD Sentinel DS5100/DS6100.

- Hard Drive
- Fans
- SODIMM Memory Module
- Power Supply
- Boot Drive

The WD Sentinel is also designed to be easily mounted on a rack.

Before You Begin

- Ensure that you have the correct replacement unit.
- Review the procedures before beginning to replace a part.

Replacing a Hard Drive

It is simple to replace a drive in your WD Sentinel server. First, make sure to go to the WD Store to purchase a compatible replacement drive. For a complete list of approved drive models, search for Answer ID 9443 in the WD Knowledge Base at *http://support.wd.com*.

The drives in the WD Sentinel server are "hot swappable." This means that the WD Sentinel server can remain powered on while you replace the drive. Once replaced, complete the steps outlined in "Recovering from a Failed Drive" on page 48 to integrates the new drive into the RAID array.

Drive Types

Provided below is a description of the types of hard drives you can use to replace an existing drive. The type of drive used in your device can be found within on the device Dashboard Monitor Page on the Health tab.

Hard Drive Type	Description
Preferred	Preferred drives preform optimally with your device and should always be used whenever possible. Preferred drives are fully tested and approved for use with your device.
Supported	Supported drives are not the optimal drives for your device but are part of the same drive family. These drives are not fully tested with this device.
Unsupported	Unsupported drives have not been tested with this device and should be used at your own risk. The LED on the front of your device is Red. **WARNING!** **Using an unsupported drive in your device immediately voids your warranty and may cause damage to your device and data.** Unsupported drives must be enabled before the drive can be used with your device. If you choose to use an unsupported hard drive, use the following steps after the drive has been replaced in the device to enable the drive. *Note:* There are certain unsupported hard drives that you cannot enable. For those drives, there is a **Learn More** link with information on how to obtain a WD preferred drive. 1. Access the device Dashboard Monitor page. 2. Select the Health tab, if not already selected. 3. Identify the unsupported drive in the Internal Storage area. Unsupported displays in red in the Type column. 4. Click **Enable**, located to the right of the drive Type. 5. Read the alert disclaimer, then select **Yes** if you'd like to enable your current unsupported drive. 6. Click **Configure** at the top of the Internal Storage area. 7. Set up your hard drive (See "Setting Up Your Drives" on page 43.) The LED on the front of your device will change to blue.

What you'll Need:

- Replacement hard drive

Replacing a Hard Drive

Use the following steps to replace a drive in your WD Sentinel server.

1. Unlock and open the drive door (Figure 1).
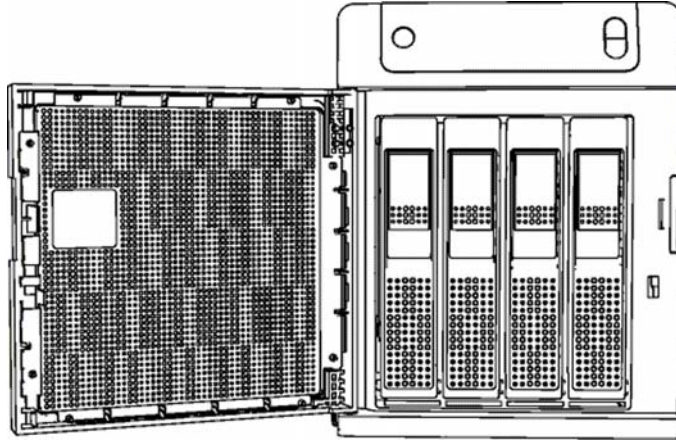
Figure 1. Open drive door

2. For a failed drive, verify that the LED for the failed drive is solid red.
3. Pull the handle on the front of the hard drive toward you.
4. When it snaps open, pull the hard drive toward you to remove it. (Figure 2).
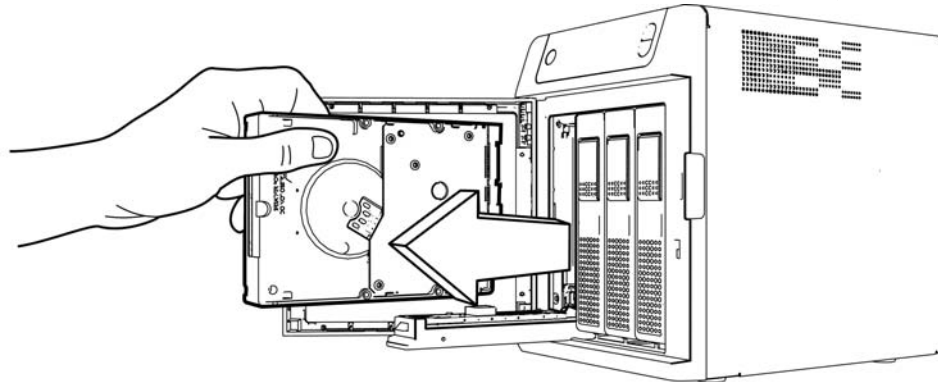
Figure 2. Remove hard drive

5.   Slide the approved replacement drive into the drive bay, making sure that it is properly seated and is facing the correct direction.
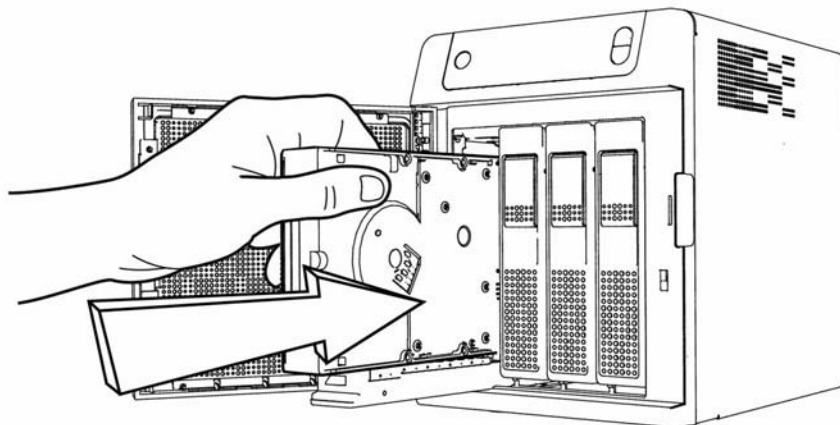
Figure 3. Replace hard drive

6.   Using some force, snap the drive handle shut.
7.   Close and lock the door on the front of the server, making sure it snaps shut.
8.   The LED remains blank until the rebuild is complete. The rebuild percentage displays on the LCD.

Replacing a Server Fan

When a fan requires replacement, you will receive an e-mail Alert indicating that there is a problem with one of your WD Sentinel server fans.

The fans in the WD Sentinel server are "cold swappable." This means that the WD Sentinel server must be shut down prior to your fan replacement. To shut down your WD Sentinel server, follow the steps outline in "Shutting Down and Rebooting the Server" on page 40.

Important: To avoid electrostatic discharge (ESD) problems, ground yourself by touching metal before handling the device.

What you'll Need:

- Phillips screwdriver
- Replacement server fan

Replacing a Server Fan

1. Shut down the server.
2. Disconnect all external connections.
3. Place the unit on a clean and stable surface.
4. On the back of the unit, loosen and remove the four (4) Fan Plate mounting screws (Figure 5).
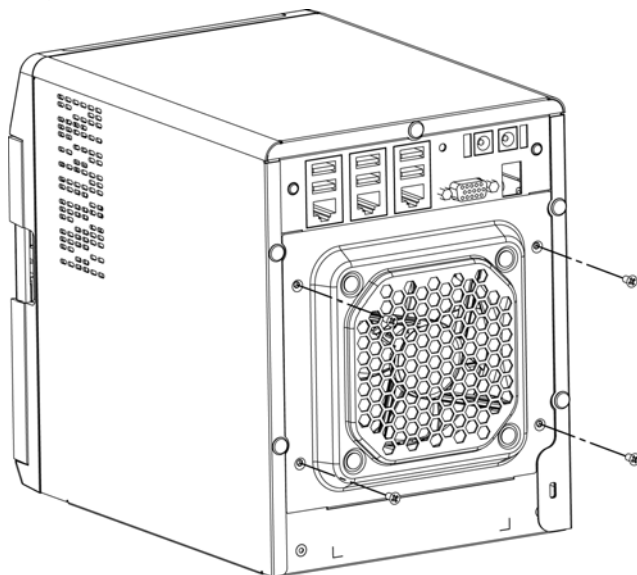
Figure 4. Remove Fan Plate mounting screws

5. Carefully lower the fan plate toward you then lift the fan plate out of the unit (Figure 5).
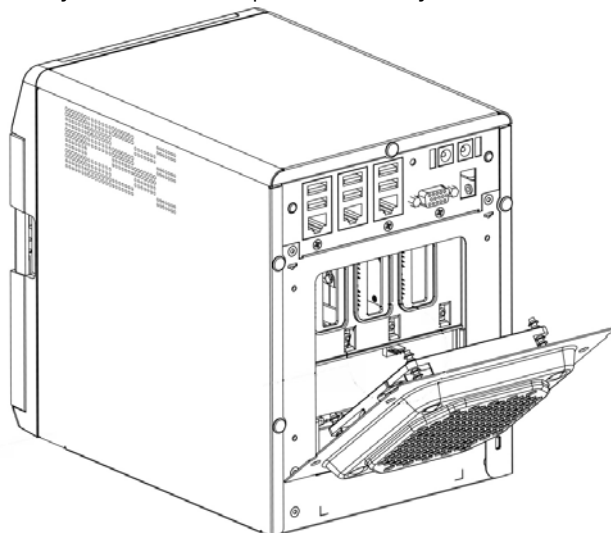
Figure 5. Remove fan

WARNING! Before removing the fan plate completely from the unit, detach the fan interface connector from the back plane PCBA.

6. Gently place the replacement fan into the unit, ensuring that the orientation of the fan is correct and that the fan interface connector is connected.
7. Replace and tighten the four (4) Fan Plate mounting screws.
8. Do not over-tighten the mounting screws.
9. Reconnect all of the cables for the device.
10. Restart the server.

Important: Do not disassemble the fan. Return the entire assembly intact to WD, if instructed to do so.

Removing the Unit Cover

Use the following steps remove the cover on the WD Sentinel DS5100/DS6100 device. These steps are necessary to replace certain internal parts.

> **Important:** To avoid electrostatic discharge (ESD) problems, ground yourself by touching metal before handling the device.

To shut down your WD Sentinel server, follow the steps outline in "Shutting Down and Rebooting the Server" on page 40.

What you'll Need:

- Phillips screwdriver

Removing the Unit Cover

1. Before getting started, shut down the server and disconnect all external connections.

2. Place the unit on a clean and stable surface, with the back of the unit facing you.

3. Release five (5) screws on the back of the unit (Figure 6).
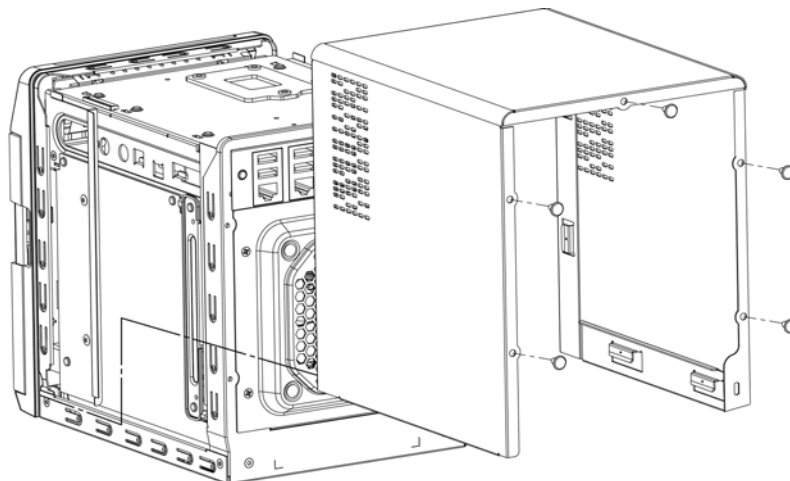
Figure 6. Unscrew and remove unit cover

4. Pull the unit cover toward you up to release the cover.
   (Figure 6).

Replacing the SODIMM Memory Module

The SODIMM memory module in the WD Sentinel server is "cold swappable." This means that the WD Sentinel server must be shut down prior to your module replacement. To shut down your WD Sentinel server, follow the steps outline in "Shutting Down and Rebooting the Server" on page 40.

Important: To avoid electrostatic discharge (ESD) problems, ground yourself by touching metal before handling the device.

What you'll Need:

- Phillips screwdriver
- Replacement SODIMM Memory module

Replacing a SODIMM Memory Module

1. Shut down the server.
2. Disconnect all external connections.
3. Follow the steps outlined in "Removing the Unit Cover" on page 87.
4. Disconnect all cables attached to the assembly.
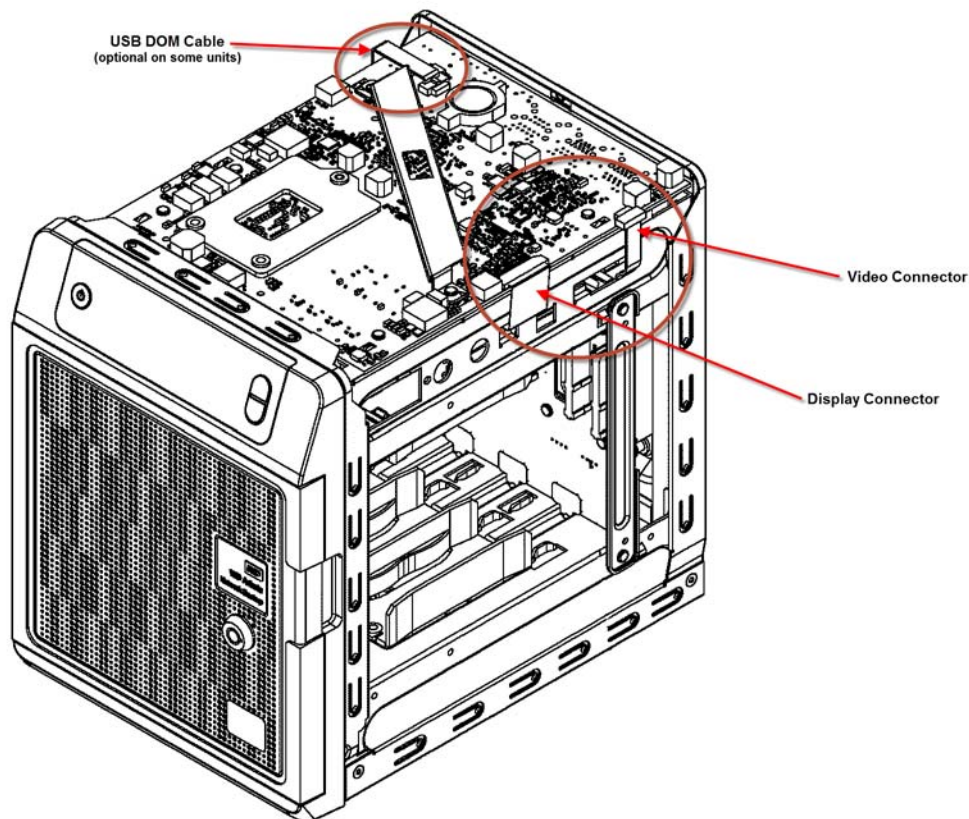
Important: Ensure that you carefully lift the ZIF connector gate and remove the ZIF Display Connector.

5. On the top of the unit, loosen and remove the six (6) screws holding the PCBA unit in place.
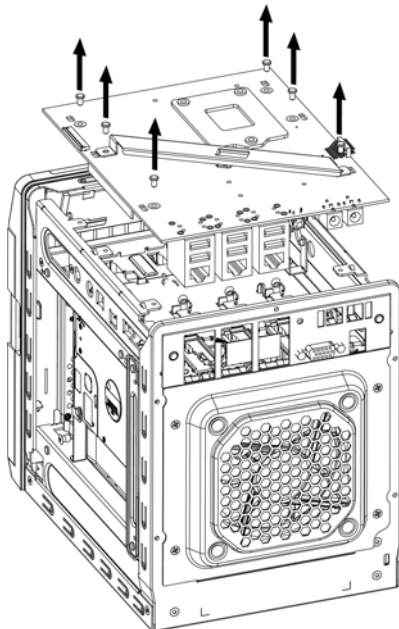
Figure 7. Remove screws from PCBA unit

6. Carefully lift the PCBA up and away from the rest of the unit, then gently place the flipped assembly on a stable flat surface.

> **WARNING!** Ensure that the connector clears the plate when removing the assembly.

7. Remove and replace or add additional 2PL-SODIMM module(s).

> *Note:* This unit uses memory in coordinated pairs and are color-coded. For a list of valid memory configurations, search for Answer ID 9999 in the WD Knowledge Base at *http://support.wd.com*.
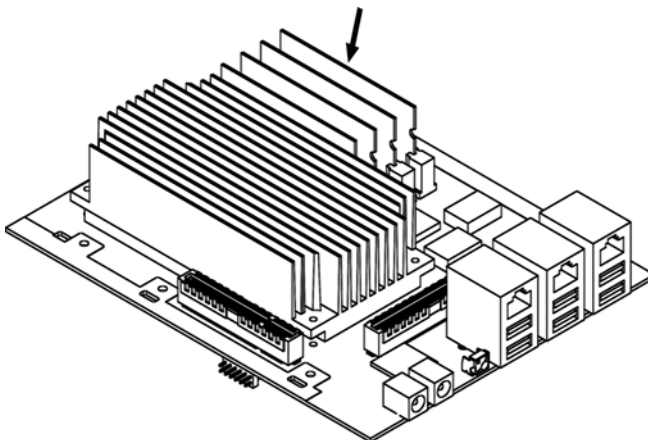
Figure 8. Replace 4PL-SODIMM module

8. Once the 2PL-SODIMM module has been added or updated, replace the PCBA back on the WD Sentinel device, ensuring that the cables are again attached to the assembly and that the PCBA is properly seated. Replace and tighten the six (6) screws holding the PCBA in place.

   Note: Do not over-tighten the PCBA screws.

9. Replace the unit cover and replace and tighten the five (5) exterior screws.

   Note: Do not over-tighten the exterior screws.

10. Connect all external connections.
11. Restart the server.

Adding a Boot Drive

The WD Sentinel server comes with either one (DS5100) or two (DS6100) 2.5-inch boot drive pre-loaded with Windows Server 2012 R2 Essentials and specialized hardware services and drivers. The pre-loaded boot drive(s) provides the ability to keep the OS running from the boot drive while redeploying or changing applications and folders running on the large capacity data drives.

The boot drive in the WD Sentinel DS5100 server are "cold swappable." This means that the WD Sentinel server must be shut down prior to adding a boot drive. To shut down your WD Sentinel server, follow the steps outline in "Shutting Down and Rebooting the Server" on page 40.

Important: To avoid electrostatic discharge (ESD) problems, ground yourself by touching metal before handling the device.

What you'll Need:

- Phillips screwdriver
- Flat-head screwdriver
- Boot Drive kit

Adding a Boot Drive

1. Prepare your boot drive for insertion:
   - Using a flat-head screwdriver, attach the brace bar to the boot drive.
2. Shut down the server.
3. Disconnect all external connections.
4. Follow the steps outlined in "Removing the Unit Cover" on page 87.
5. On the right or left side of the unit, find an empty bracket for your boot drive.

Empty boot drive bracket
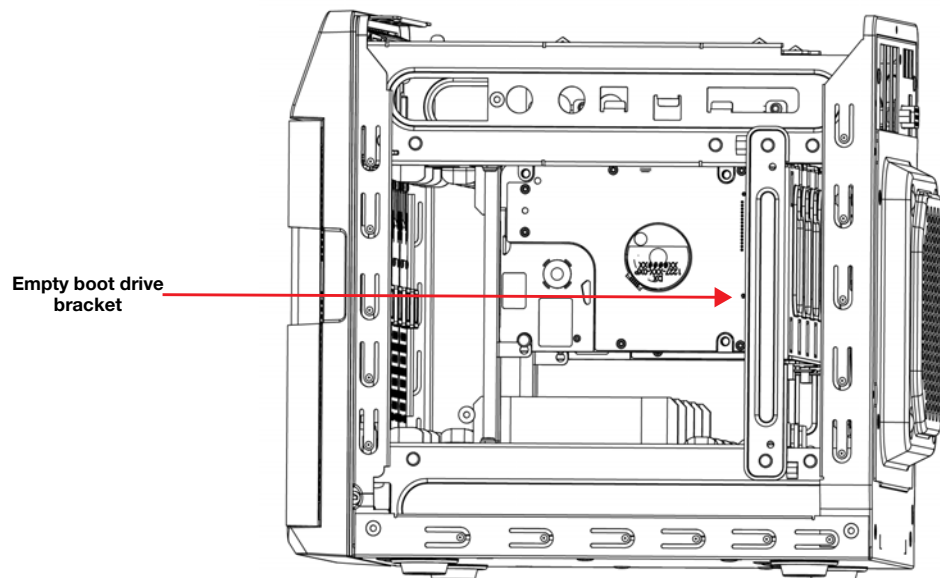
6. With the boot drive pins facing the back of the device, gently push your boot drive into the empty boot drive bracket.
7. Place and tighten two (2) screws, attaching the brace bar on the boot drive to the unit.

8. Replace the unit cover and replace and tighten the five (5) exterior screws.

    Note: Do not over-tighten the exterior screws.

9. Connect all external connections.
10. Restart the server.

WD RAID Storage Utility

The WD RAID Storage Utility allows you to configure and maintain the RAID storage on your WD Sentinel server.

Accessing the WD RAID Storage Utility

There are two main ways to access the WD RAID Storage Utility:

- Initially, when setting up your drives, you're able to access the utility from the Dashboard Home page by clicking Setting up your drives in the Task pane and Selecting RAID from the Set Up your Drives wizard.
- Once your drives have been setup for RAID storage, you can access the utility from the Dashboard Storage tab by selecting **Configure** in the Internal Storage area.
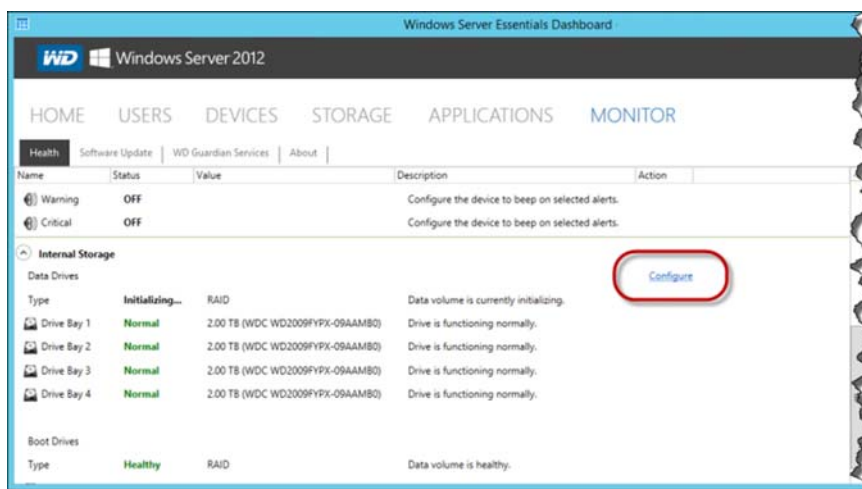
- On your WD Sentinel server desktop, double-click the WD RAID Storage Utility icon in the Windows tray.

Using the Home Page

The Home page allows you to access the tasks and information that help you configure and manage your WD Sentinel server RAID storage.
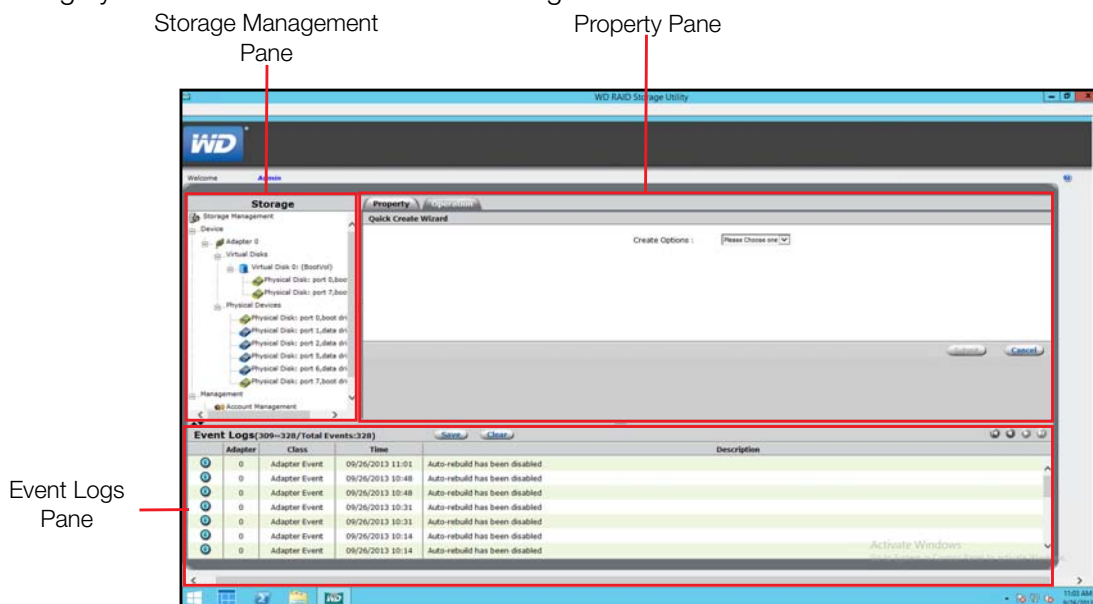
Storage Management Pane

The Storage Management pane uses a tree view to list and show physical and virtual devices attached to the WD Sentinel server, including:

- Adapter
- Virtual Disks
- Physical Devices

Properties Pane

The Properties pan lists the properties of the device selected in the Storage Management pane. The Properties pane contains two tabs at the top:

- **Property:** Select Property to view or modify the properties of the device selected in the Storage Management pane.
- **Operation:** Roll over the Operation tab to view a menu of operations that can be performed on the device selected in the Storage Management pane.

Event Logs Pane

The Events Logs pane lists adapter events. The events are categorized into informational, warning, and error events.

Operations Tab Tasks

Use the following steps to perform tasks on your RAID virtual disks.

Initialization

Use the following steps to create a background initialization of your RAID virtual disks.

1. On the WD Raid Storage Utility Home screen, in the Storage Management pane, select the Virtual Disk.
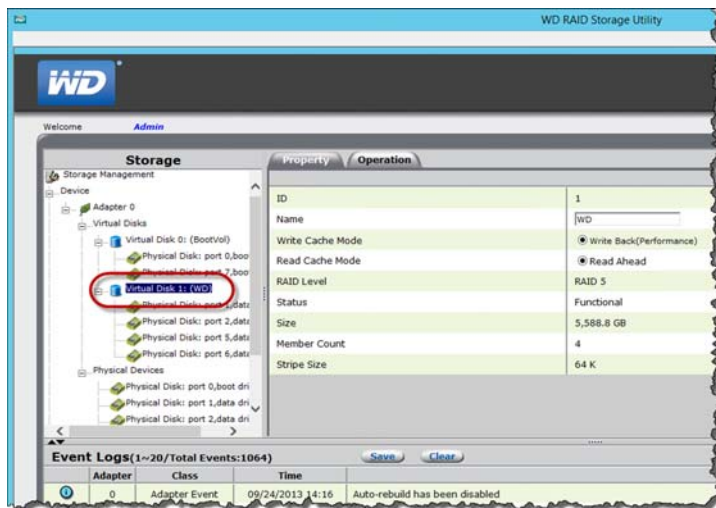
2. Hover over the Operation tab and select **Initialization** from the menu.
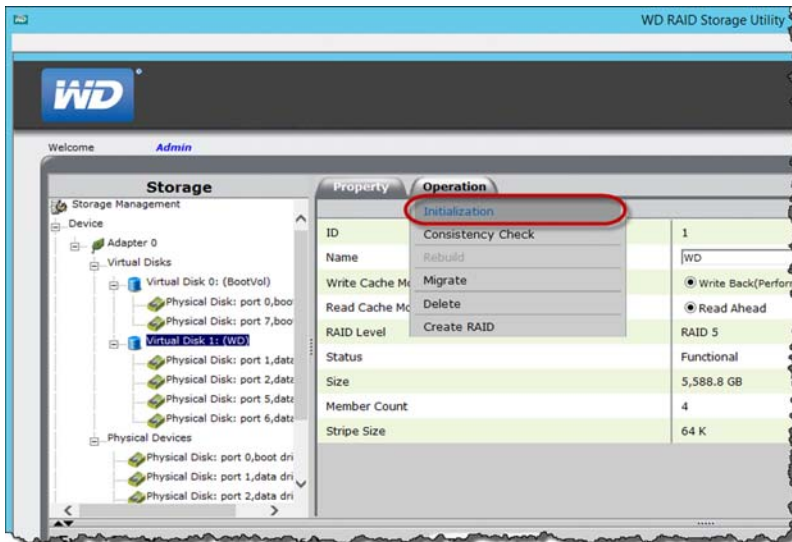
3. Ensure that Background Initialization is selected, then click **Start**. Background Initialization begins.
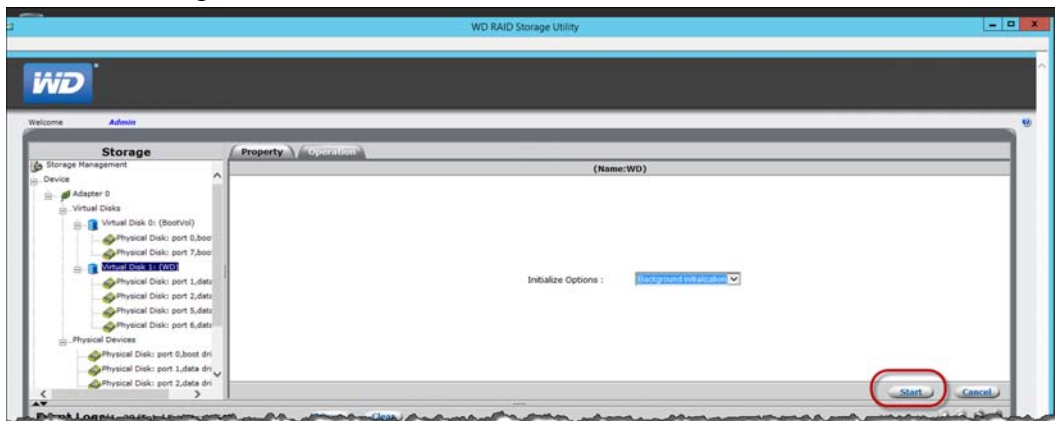
To Pause Initialization:

- On the WD Raid Storage Utility Home screen, in the Storage Management pane, select the Virtual Disk
- Hover over the Operation tab and select **Pause Background Initialization** from the menu.

To Stop Initialization:

- On the WD Raid Storage Utility Home screen, in the Storage Management pane, select the Virtual Disk
- Hover over the Operation tab and select **Stop Background Initialization** from the menu.

Migration

Use the following steps to migrate a virtual drive into a RAID configuration.

1. On the WD Raid Storage Utility Home screen, in the Storage Management pane, select the Virtual Disk where the drive(s) you'd like to migrate reside.
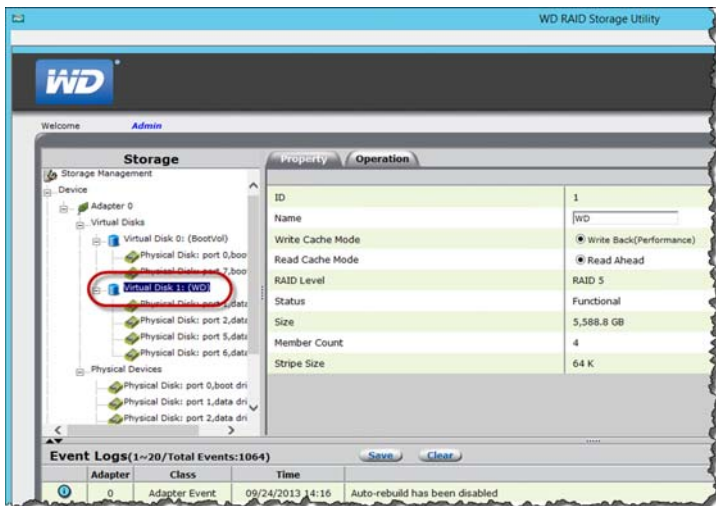
2. Hover over the Operation tab and select **Migrate** from the menu.
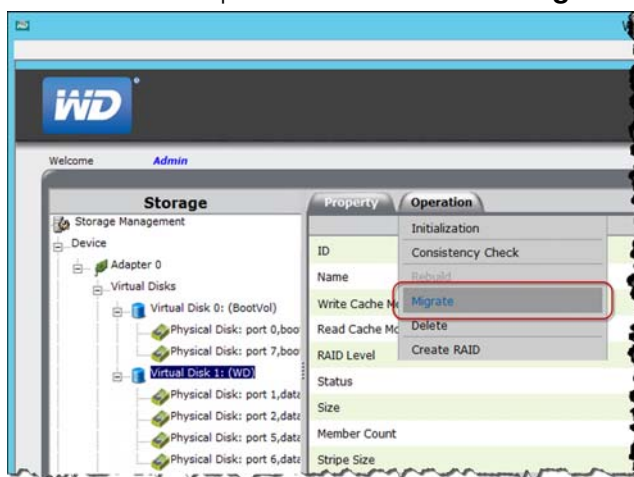
3. On the Migrate VD screen, in the Select Migrate RAID Level field, select the RAID level you'd like to use from the pull-down menu.
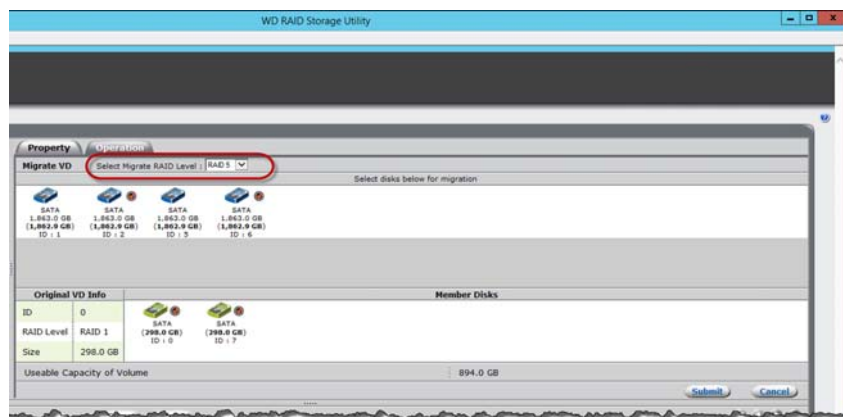
4. Select the virtual drive(s) you'd like to migrate, then click **Submit**. Migration begins.
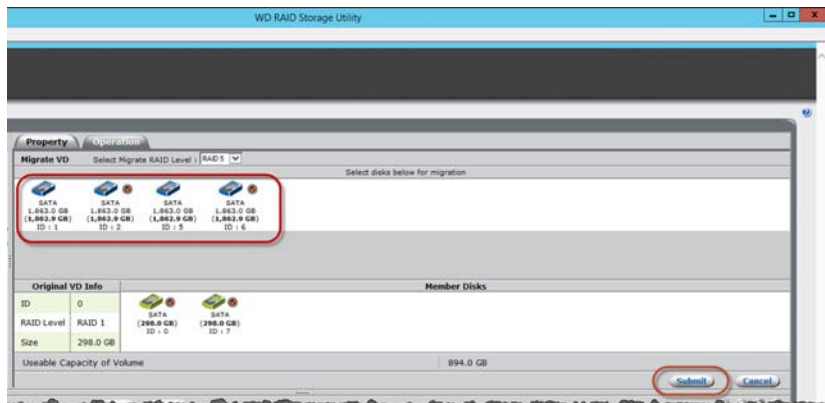
Consistency Check

Use the following steps to perform a consistency check on your server disks.

1. On the WD Raid Storage Utility Home screen, in the Storage Management pane, select the Virtual Disk you'd like to perform.
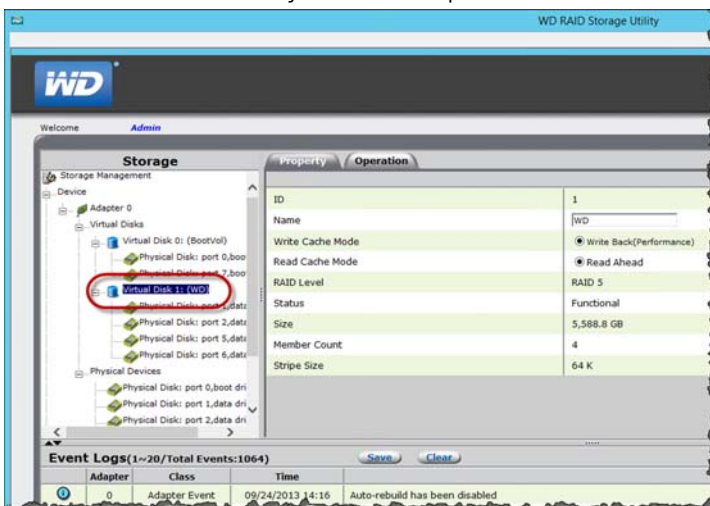
2. Hover over the Operation tab and select **Consistency Check** from the menu.
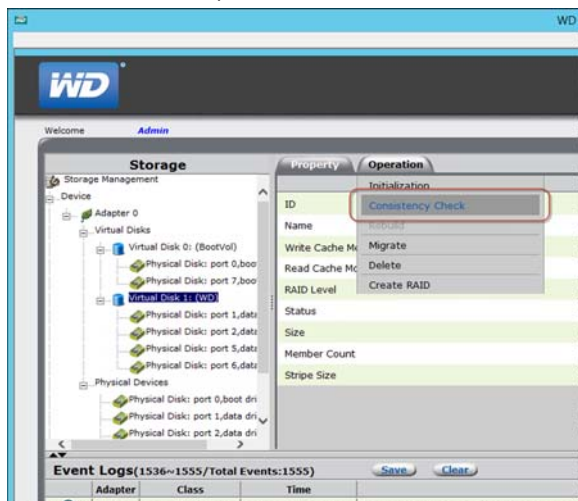
3. Select **Consistency Check** from the pull-down menu, then click **Start**.
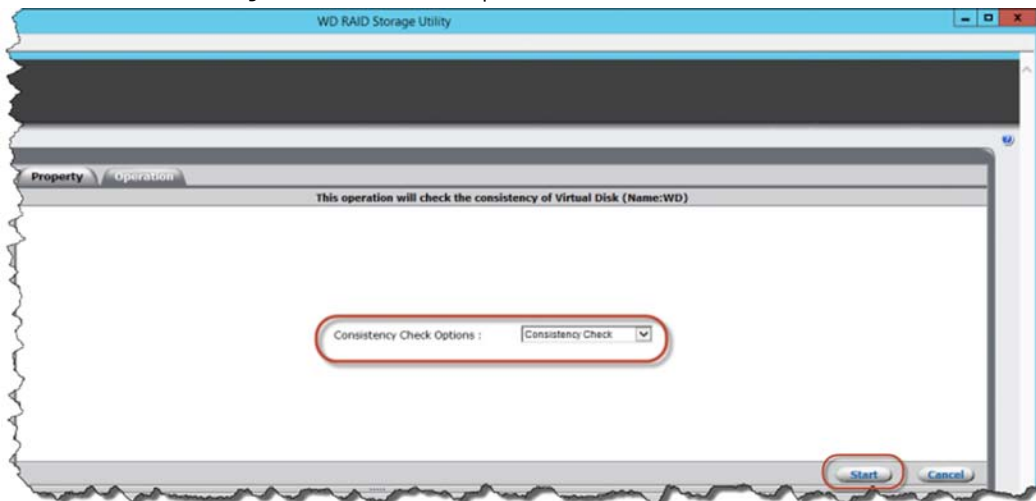
The consistency check begins.

Deleting Virtual Drive

Use the following steps to delete your virtual drives.

WARNING! **Ensure that you have not selected your boot drive (Drive 0) when deleting virtual drives. When the drive is deleted, all data on the drive is erased.**

---

1. On the WD Raid Storage Utility Home screen, in the Storage Management pane, select the Virtual Disk you'd like to delete.
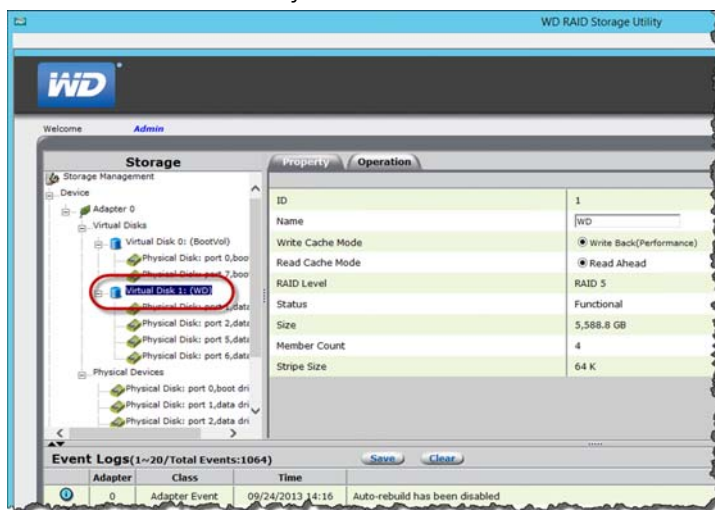
2. Hover over the Operation tab and select **Delete** from the menu.
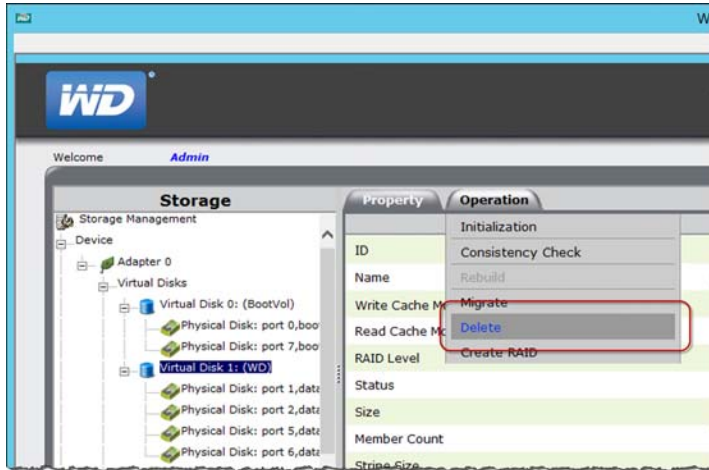
3. Read the Warning, then click **OK**.
4. Read the message, then click **OK**. Your virtual drive(s) are deleted.
5. Read the message concerning partition information, then click **OK**. Your virtual drive(s) are deleted.

WD Sentinel DS5100/DS6100 Administrator Reference Sheet

Provided below is a reference sheet that allows you to keep all of the useful information associated with your WD Sentinel DS5100/DS6100 server in one location. Enter the information identified below and keep this checklist in a safe location for future reference.

WD Sentinel DS5100/DS6100 Server Name:_____

WD Sentinel DS5100/DS6100 IP Address:

- ▪ Static IP Address: _____

- ▪ Dynamic IP Address: _____

WD Sentinel DS5100/DS6100 Server Password:_____

User Name: _____

Domain Name: _____

Index

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